

May 3, 2021

**BY ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: Docket 5077 - Standards for Connecting Distributed Generation, R.I.P.U.C. No. 2244  
National Grid's Testimony, Supplemental Filing**

Dear Ms. Massaro:

On behalf of National Grid,<sup>1</sup> I have enclosed an electronic copy of the supplemental filing to the pre-filed testimony of Timothy R. Roughan in the above-referenced docket providing proposed revisions to the Simplified process and related proposed revisions to the Tariff that have not been presented to the Commission previously.<sup>2</sup>

The proposed revisions to the Simplified process and related proposed revisions to the Tariff are reflected as redlines and highlighted in comment bubbles and are attached to this letter as Attachment 1.<sup>3</sup> (In creating the PDF, the comment bubbles moved to end of the proposed revisions.) The Company has also included as Attachment 2 to this letter a revised table, which includes a summary and rationale for the proposed revisions to the Simplified process and related proposed revisions to the Tariff and references to the applicable sections of the proposed partial consensus Tariff, with these new proposed revisions and new references reflected as redlines against the table in Attachment 1 to Mr. Roughan's pre-filed testimony.<sup>4</sup> If the Commission approves these proposed revisions, conforming changes will be required to Exhibit A and Exhibit B of the Tariff. The proposed consensus revisions to the Tariff that the Company submitted to the Commission on October 22, 2020 also are reflected in redlines in Attachment 1 to this letter (but are not highlighted in comment bubbles because those proposed revisions were presented to the Commission in the October 22, 2020 filing).<sup>5</sup>

---

<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

<sup>2</sup> The Company is making this supplemental filing per Commission counsel's April 29, 2021 request. Per Commission counsel's update on October 2, 2020, concerning the COVID-19 emergency period, the Company is submitting an electronic version of this filing. The Company will provide the Commission Clerk with five (5) hard copies and, if needed, additional hard copies of the enclosures upon request.

<sup>3</sup> The Company has corrected typographical errors in the draft proposed Tariff revisions reviewed by the other parties in this docket.

<sup>4</sup> Attachment 2 also reflects proposed revisions to Section 9 of the Tariff that inadvertently were omitted from Attachment 1 to Mr. Roughan's pre-filed testimony.

<sup>5</sup> Attachment 1 does not reflect the proposed new second to last paragraph of Section 5.4, Separation of Costs, from the October 22, 2020 filing, or the proposed references to an Ombudsperson in the October 22, 2020 filing, because subsequently those were determined to be non-consensus proposed revisions.

Luly Massaro, Commission Clerk  
Tariff Advice - Standards for Connecting Distributed Generation  
May 3, 2021  
Page 2 of 2

Attachment 1 represents partial consensus proposed tariff revisions as described in Mr. Roughan's pre-filed testimony. The proposed flat fee of \$750 for Pre-Application Reports in Table 2, which is a partial consensus proposed revision, is highlighted in a comment bubble.

As Commission counsel requested, the Company will clean up the formatting of the Tariff in the clean version of the Tariff the Company will submit as a compliance filing following the PUC's ruling in this docket.

Thank you for your attention to this filing. If you have any questions concerning this matter, please contact me at 781-907-2121.

Very truly yours,



Raquel J. Webster

Attachments

cc: Cynthia Wilson-Frias, Esq.  
Jon Hagopian, Esq., Division  
John Bell, Division  
Chris Kearns, OER  
Jeremy McDiarmid, NECEC

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



\_\_\_\_\_  
Joanne M. Scanlon

\_\_\_\_\_  
May 3, 2021

Date

**Docket No. 5077– National Grid’s Standard for Distributed Generation Tariff Advice  
Service List updated 10/27/2020**

<b>Parties’ Name/Address</b>	<b>E-mail</b>	<b>Phone</b>
Raquel Webster, Esq. <b>National Grid</b> 280 Melrose Street Providence, RI 02907	<a href="mailto:Raquel.webster@nationalgrid.com">Raquel.webster@nationalgrid.com</a> ;	781-907-2121
	<a href="mailto:Jennifer.Hutchinson@nationalgrid.com">Jennifer.Hutchinson@nationalgrid.com</a> ;	
	<a href="mailto:Nancy.Israel@nationalgrid.com">Nancy.Israel@nationalgrid.com</a> ;	
	<a href="mailto:Brooke.skulley@nationalgrid.com">Brooke.skulley@nationalgrid.com</a> ;	
	<a href="mailto:Joanne.scanlon@nationalgrid.com">Joanne.scanlon@nationalgrid.com</a> ;	
	<a href="mailto:Timothy.Roughan@nationalgrid.com">Timothy.Roughan@nationalgrid.com</a> ;	
	<a href="mailto:Kevin.Kelly2@nationalgrid.com">Kevin.Kelly2@nationalgrid.com</a> ;	
	<a href="mailto:John.Kennedy@nationalgrid.com">John.Kennedy@nationalgrid.com</a> ;	
Albert Vitali, Esq. <b>Dept. of Administration</b> Division of Legal Services One Capitol Hill, 4 <sup>th</sup> Floor Providence, RI 02908	<a href="mailto:Albert.Vitali@doa.ri.gov">Albert.Vitali@doa.ri.gov</a> ;	401-222-8880
	<a href="mailto:Nancy.Russolino@doa.ri.gov">Nancy.Russolino@doa.ri.gov</a> ;	
	<a href="mailto:Christopher.Kearns@energy.ri.gov">Christopher.Kearns@energy.ri.gov</a> ;	
	<a href="mailto:Nicholas.ucci@energy.ri.gov">Nicholas.ucci@energy.ri.gov</a> ;	
	<a href="mailto:Jacklyn.Olivieri@energy.ri.gov">Jacklyn.Olivieri@energy.ri.gov</a> ;	
	<a href="mailto:Carrie.Gill@energy.ri.gov">Carrie.Gill@energy.ri.gov</a> ;	
	<a href="mailto:Shauna.Beland@energy.ri.gov">Shauna.Beland@energy.ri.gov</a> ;	
Jon Hagopian, Sr. Counsel <b>Division of Public Utilities and Carriers</b>	<a href="mailto:Jon.hagopian@dpuc.ri.gov">Jon.hagopian@dpuc.ri.gov</a> ;	401-784-4775
	<a href="mailto:John.bell@dpuc.ri.gov">John.bell@dpuc.ri.gov</a> ;	
	<a href="mailto:Dmacrae@riag.ri.gov">Dmacrae@riag.ri.gov</a> ;	
	<a href="mailto:Margaret.L.Hogan@dpuc.ri.gov">Margaret.L.Hogan@dpuc.ri.gov</a> ;	
File an original & 9 copies w/: Luly E. Massaro, Commission Clerk Cynthia Wilson-Frias, Commission Counsel <b>Public Utilities Commission</b> 89 Jefferson Blvd. Warwick, RI 02888	<a href="mailto:Luly.massaro@puc.ri.gov">Luly.massaro@puc.ri.gov</a> ;	401-780-2107
	<a href="mailto:Alan.nault@puc.ri.gov">Alan.nault@puc.ri.gov</a> ;	
	<a href="mailto:Todd.bianco@puc.ri.gov">Todd.bianco@puc.ri.gov</a> ;	
	<a href="mailto:Cynthia.WilsonFrias@puc.ri.gov">Cynthia.WilsonFrias@puc.ri.gov</a> ;	
Jeremy McDiarmid, NECEC	<a href="mailto:jmcdiarmid@necec.org">jmcdiarmid@necec.org</a> ;	

Effective  
September 6, 2018  
2021

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

R.I.P.U.C. No. 22442180  
Canceling R.I.P.U.C. No. 21632180

**Formatted:** Font: 11 pt

**Formatted:** Left: 0.8", Right: 0.8", Top: 0.8", Bottom:  
0.8", Footer distance from edge: 0.2"

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 1

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

## TABLE OF CONTENTS

<b>1.0</b>	<b>Introduction.....</b>	<b><del>33</del></b>
1.1	Applicability.....	<del>33</del>
1.2	Definitions.....	<del>33</del>
1.3	Forms and Agreements .....	<del>98</del>
<b>2.0</b>	<b>Basic Understandings.....</b>	<b><del>109</del></b>
<b>3.0</b>	<b>Process Overview .....</b>	<b><del>111</del></b>
3.1	Simplified Process.....	<del>1312</del>
3.2	Pre-Application Reports.....	<del>2014</del>
3.3	Expedited Process .....	<del>2215</del>
3.4	Standard Process .....	<del>2917</del>
3.5	Time Frames .....	<del>3221</del>
3.6	Fee Schedules.....	<del>3322</del>
	Table 1 - Time Frames (Note 1).....	<del>4028</del>
	Table 2 - Fee Schedules .....	<del>4230</del>
<b>4.0</b>	<b>Interconnection Requirements .....</b>	<b><del>4633</del></b>
4.1	General Design Considerations.....	<del>4633</del>
4.0.1	Transient Voltage Conditions .....	<del>4633</del>
4.0.2	Noise and Harmonics .....	<del>4633</del>
4.0.3	Frequency.....	<del>4633</del>
4.0.4	Voltage Level.....	<del>4734</del>
4.0.5	Machine Reactive Capability .....	<del>4734</del>
4.2	Protection Requirements for New or Modified Facility Interconnections with the EPS .....	<del>4734</del>
4.2.1	General Requirements.....	<del>4734</del>
4.2.2	Facility Classification.....	<del>4835</del>
4.2.3	Protection Requirements .....	<del>4835</del>
4.2.4	Group 1 Facilities.....	<del>4835</del>
4.2.3.2	Group 2 Facilities.....	<del>3838</del>
4.2.3.3	General Requirements.....	<del>3838</del>
4.2.3.2.2	Requirements for Induction and Synchronous Generator Facilities .....	<del>3939</del>
4.2.3.2.3	Additional Requirements for Induction Generator Facilities.....	<del>4040</del>
4.2.3.2.4	Additional Requirements for Synchronous Generator Facilities .....	<del>4141</del>
4.2.4	Protection System Testing and Maintenance .....	<del>4141</del>
4.2.5	Protection Requirements – Momentary Paralleling of Standby Generators .....	<del>4242</del>
4.2.6	Protection System Changes.....	<del>4242</del>
<b>5.0</b>	<b>Responsibility for Costs of Interconnecting a Facility.....</b>	<b><del>4543</del></b>
5.1	Review and Study Costs.....	<del>4543</del>
5.2	Interconnection Equipment Costs .....	<del>4543</del>
5.3	System Modification Costs .....	<del>4543</del>
5.4	Separation of Costs .....	<del>4644</del>
5.5	Normal Payment Procedure .....	<del>4745</del>
5.6	Security and Creditworthiness .....	<del>4745</del>
<b>6.0</b>	<b>Operating Requirements.....</b>	<b><del>4846</del></b>
6.1	General Operating Requirements.....	<del>4846</del>
6.2	No Adverse Effects; Non-interference.....	<del>4846</del>

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 2

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

6.3	Safe Operations and Maintenance.....	<del>49</del> 46
6.4	Access.....	<del>49</del> 47
6.4.1	Company and Interconnecting Customer Representatives.....	<del>49</del> 47
6.4.2	Company Right to Access Company-Owned Facilities and Equipment.....	<del>49</del> 47
6.4.3	Right to Review Information .....	<del>49</del> 47
<b>7.0</b>	<b>Disconnection .....</b>	<del>49</del> 47
7.1	Temporary Disconnection.....	<del>49</del> 47
7.2	Permanent Disconnection.....	<del>51</del> 48
<b>8.0</b>	<b>Metering, Monitoring, and Communication .....</b>	<del>51</del> 49
8.1	Metering, Related Equipment and Billing Options.....	<del>51</del> 49
8.2	Additional Monitoring and Communication Requirements.....	<del>53</del> 51
<b>9.0</b>	<b>Dispute Resolution Process .....</b>	<del>53</del> 51
9.1	Good Faith Negotiation.....	<del>53</del> 51
9.2	Mediation/Non-binding Arbitration .....	<del>53</del> 51
9.3	Commission Adjudicatory Hearing.....	<del>55</del> 53
	<u>Table 3 - Dispute Resolution Timeframes .....</u>	<u>54</u>
9.4	Interconnection Technical Standards Committee .....	<del>58</del> 56
<b>10.0</b>	<b>Insurance Requirements .....</b>	<del>58</del> 56
10.1	General Liability .....	<del>58</del> 56
10.2	Insurer Requirements and Endorsements.....	<del>60</del> 58
10.3	Evidence of Insurance .....	<del>60</del> 58
<b>11.0</b>	<b>Limitation of Liability .....</b>	<del>61</del> 59
	Exhibit A – Simplified Process Interconnection Application.....	<del>62</del> 60
	Exhibit B – Generating Facility Expedited/Standard Pre-Application Report Form.....	<del>69</del> 67
	Exhibit C – Expedited/Standard Process Interconnection Application.....	<del>70</del> 68
	Exhibit D – Supplemental Review Agreement.....	<del>79</del> 77
	Exhibit E – Feasibility Study Agreement .....	<del>80</del> 78
	Exhibit F – Pre-Impact Study Review Agreement.....	<del>82</del> 80
	Exhibit G – Impact Study or ISR DG Agreement .....	<del>84</del> 82
	Exhibit H – Detailed Study Agreement .....	<del>87</del> 85
	Exhibit I – Interconnection Service Agreement.....	<del>90</del> 88

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 3

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

## 1.0 Introduction

### 1.1 Applicability

This document ("Interconnection Tariff") describes the process and requirements for an Interconnecting Customer to connect a power-generating facility to the Company's electric distribution system, referred to as the Electric Power System ("Company EPS"), including discussion of technical and operating requirements, metering and billing options, and other matters. Projects greater than 1 MW will likely require some level of review by the Company's transmission provider, New England Power (NEP), in accordance with all applicable ISO-NE tariffs, rules and procedures. Without limitation, power generating facilities greater than 5 MWs either singly or in the aggregate with multiple projects in close proximity will require further analysis and study by the ISO-NE.

The procedure for momentary paralleling to the Company EPS with back-up generation is described within Section 4.0 Interconnection Requirements.

If the Facility will always be isolated from the Company's EPS, (*i.e.*, it will never operate in parallel to the Company's EPS), then this Interconnection Tariff does not apply.

References in this Interconnection Tariff to the term "Interconnecting Customer," as such term is defined herein, shall be deemed to include "Renewable Interconnecting Customer," as such term is defined herein, except where otherwise explicitly stated in this Interconnection Tariff.

### 1.2 Definitions

The following words and terms shall be understood to have the following meanings when used in this Interconnection Tariff:

**Affected System:** Any neighboring transmission or distribution electric power system, other than EPS not under the control of the Company EPS, for (e.g., a municipal utility, or other regulated distribution or transmission utility, which the stability, reliability or operating characteristics may be significantly affected by the proposed Facility, include Affiliates, or ISO-NE, as defined herein).

Affected System Operator (ASO): A person or entity operating an Affected System.

Affected System Owner: A person or entity owning an Affected System.

Affected System Operator Study (ASO Study): An engineering study conducted by or with the oversight of an Affected System Operator and/or an Affected System Owner for the purposes of determining whether a Facility may have a significant effect on the stability, reliability or operating characteristics of the Affected System and, if necessary, to determine the scope of the required modifications to the Affected System and/or the Facility to provide the requested interconnection service.

**Affiliate:** A person or entity controlling, controlled by or under common control with a Party.

Formatted: Normal, Indent: Left: 0.38", Right: 0"

Formatted: Indent: Left: 0.38", Space Before: 0 pt

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 4

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Anti-Islanding:** Describes the ability of a Facility to avoid unintentional islanding through some form of active control technique.

**Application:** The notice provided by the Interconnecting Customer to the Company in the form shown in Exhibits A and C, which initiates the interconnection process.

**Area EPS:** The Company EPS. This term is used in the Institute of Electrical and Electronics Engineers (IEEE) Standard 1547-2003, "IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems" ("IEEE Standard 1547-2003").

**Commission:** Rhode Island Public Utilities Commission

**Company:** Narragansett Electric Company d/b/a National Grid

**Company EPS:** The electric [distribution](#) power system owned, controlled or operated by the Company used to provide distribution service to its Customers.

**Customer:** Company's retail customer; host site or premises, may be the same as Interconnecting Customer or Renewable Interconnecting Customer.

**Detailed Study:** The final phase of engineering study, if necessary, conducted by the Company to determine substantial System Modifications to its EPS, resulting in project cost estimates for such modifications that will be required to provide the requested interconnection service.

**DG:** Distributed Generation.

**DR:** The Facility. This term is used in IEEE Standard 1547-2003.

**Energy Storage System (ESS):** [A device that captures energy produced at one time, stores that energy for a period of time, and delivers that energy as electricity for use at a future time. For purposes of this Interconnection Tariff, an Energy Storage System can be considered part of a Facility in whole.](#)

**Expedited Process:** As described in Section 3.2, process steps for Listed Facilities from initial application to final written authorization, using a set of technical screens to determine grid impact.

**Export Capacity:** [The maximum Nameplate Rating of a Facility in alternating current \(AC\), except where such capacity is limited by an acceptable means as identified in Section 4.3 of this Interconnection Tariff, or as permitted by the Company.](#)

**Facility:** [A source of electricity. The sum of all equipment that is owned and/or operated by the Interconnecting Customer that is and located on the Customer's side of the PCC, and all facilities ancillary and appurtenant thereto, including interconnection equipment, that is used to generate, store, monitor, and control electric power, which the Interconnecting Customer requests to](#)

**Commented [IN1]:** Consensus proposed terminology for new Section 4.3.1 concerning Export Capacity

**Commented [IN2]:** Consensus proposed terminology for new Section 4.3.1 concerning Export Capacity

**Commented [IN3]:** Consensus proposed revised definition for new Section 4.3.1 concerning Export Capacity



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 5

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

interconnect to the Company EPS.

**Feasibility Study:** A high-level project assessment that includes an estimate of the cost of interconnecting a Renewable Distributed Generation Resource to the distribution system that would be assessed on the applicant for an interconnection. Such estimate is not based on any engineering study, -but is based on past experience and judgment of the Company, taking into account the information in the application, the location of the interconnection, and general knowledge of the distribution and transmission system. Such estimate cannot be relied upon the by applicant for the purposes of holding the Company liable or responsible for its accuracy as long as the Company has provided the estimate in good faith. The feasibility study estimate shall be a range within which the Company believes the interconnection costs are likely to be and shall include a disclaimer that explains the nature of the estimate.

**FERC:** Federal Energy Regulatory Commission.

**Good Utility Practice:** Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Impact Study:** The engineering study conducted by the Company under the Standard Process to determine the scope of the required modifications to its EPS and/or the Facility to provide the requested interconnection service. Unless otherwise noted in the Impact Study, the cost estimate provided will be valid for 120 business days from delivery of the study.

**Impact Study for Renewable DG (ISRDG):** An engineering study conducted by the Company that includes an estimate of the cost of interconnecting a Renewable Distributed Generation Resource to the distribution system that would be assessed on the applicant for an interconnection that is based on an engineering study of the details of the proposed generation project. Such estimate generally will have a probability of accuracy of plus or minus twenty five percent (25%). Such an estimate may be relied upon by the applicant for purposes of determining the expected cost of interconnection, but the Company may not be held liable or responsible if the actual costs exceed the estimate as long as the estimate was provided in good faith and the interconnection was implemented prudently by the Company.

Inadvertent Export: shall mean the unscheduled or unintended export of power from a Facility, exceeding a specified magnitude and for a limited duration. Inadvertent Export does not include fault current exported by the Facility due to a fault on the Company EPS.

Initial Review: A high level review of standard application where the Company will provide pertinent information that includes existing peak loading on the lines in the Facility's general vicinity, configuration of distribution lines, and if any additional study is required.

**Commented [IN4]:** Consensus proposed terminology for new Section 4.3.1 concerning Export Capacity

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 6

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**In-Service Date:** The date on which the Facility and System Modifications (if applicable) are complete and ready for service, even if the Facility is not placed in service on or by that date.

**Interconnecting Customer:** Entity that owns and/or operates the Facility interconnected to the Company EPS, with legal authority to enter into agreements regarding the construction or operation of the Facility.<sup>1</sup>

**Interconnection Service Agreement (ISA):** An agreement for interconnection service, the form of which is provided in Exhibit ~~HJ~~, between the Interconnecting Customer and the Company. The agreement also includes any amendments or supplements thereto entered into by the Interconnecting Customer and the Company.

**Interconnection Technical Standards Committee (ITSC):** A group of representatives from the utility, distributed generation providers and other stakeholder groups, who have experience in the technical aspects of interconnection, that meets regularly to discuss and make recommendations related to the technical standards for DG interconnection. See Section 9.4 for details.

**Islanding:** A situation where electrical power remains in a portion of an electrical power system when the Company's transmission or distribution system has ceased providing power for whatever reason (emergency conditions, maintenance, etc.) Islanding may be intentional, such as when certain segregated loads in a Customer's premises are provided power by a Facility after being isolated from the Company EPS after a power failure.

Unintentional Islanding, especially past the PCC, is to be strictly avoided.

**ISO-New England, Inc ("ISO-NE"):** The Independent System Operator established in accordance with the NEPOOL Agreement and applicable FERC approvals, which is responsible for managing the bulk power generation and transmission systems in New England.

**Isolated:** The state of operating the Facility when electrically disconnected from the Company EPS on the Interconnecting Customer's side of the PCC.

**Limited Export:** The exporting capability of the Facility that is maintained to be less than the Nameplate Rating described in Section 4.3.

**Local EPS:** The customer premises within which are contained the Facility. This term is used in the IEEE Standard 1547-2003.

**Listed:** A Facility that has successfully passed all pertinent tests to conform with IEEE 1547.1.

Formatted: Indent: Left: 0.38"

Commented [IN5]: Consensus proposed terminology for new Section 4.3.1 concerning Export Capacity

Formatted: Font: 10 pt

<sup>1</sup> An entity which owns the Facility interconnected to the Company EPS solely as part of a financing arrangement, which could include the acquisition of the tax credits related to the Facility, but is neither the Customer nor the operator of that Facility, shall not be considered the Interconnecting Customer hereunder.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 7

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Metering Point:** For meters that do not use instrument transformers, the point at which the billing meter is connected. For meters that use instrument transformers, the point at which the instrument transformers are connected.

**Nameplate Rating:** The individual or sum total maximum continuous power output (AC) capacity of all of a Facility's constituent generating units and/or Energy Storage Systems as identified on the manufacturer nameplate, regardless of whether it is limited by any approved means.

**Commented [IN6]:** Consensus proposed terminology for new Section 4.3.1 concerning Export Capacity

**NEPOOL:** New England Power Pool.

**Net Metering:** Customers of the Company who, pursuant to the provisions of the Company's Net Metering Provision, R.I.P.U.C. No. 2075, as amended and superseded from time to time, are eligible to receive Renewable Generation Credits and Excess Renewable Generation Credits, as applicable, as defined in R.I.P.U.C. No. 2075, Section II.

**Network Distribution System (Area or Spot):** Electrical service from an EPS consisting of one or more primary circuits from one or more substations or transmission supply points arranged such that they collectively feed secondary circuits serving one (a spot network) or more (an area network) Interconnecting Customers.

**Non-Islanding:** Describes the ability of a Facility to avoid unintentional islanding through the operation of its interconnection equipment.

**NPCC:** Northeast Power Coordinating Council.

**NRTL:** Nationally Recognized Testing Laboratory.

**Commented [IN7]:** Consensus proposed terminology for new Section 4.3.1 concerning Export Capacity

**On-Site Generating Facility:** A class of Interconnecting Customer-owned generating Facilities with peak capacity as specified in R.I.P.U.C. No. 2074, Qualifying Facilities Power Purchase Rate.

**Formatted:** Indent: Left: 0", First line: 0.38"

**Parallel:** The state of operating the Facility when electrically connected to the Company EPS (sometimes known as grid-parallel).

**Parties:** The Company and the Interconnecting Customer.

**Pre-Impact Study Review:** A high-level engineering review for larger projects (any single project or multiple projects submitted concurrently by the same applicant in the same area with an aggregate nameplate capacity >1 MW) conducted by the Company prior to an Impact Study or ISRDG under the Standard Process to determine the scope of the required modifications to its EPS and/or the Facility to provide the requested interconnection service. A Pre-Impact Study Review is not required.

**Formatted:** Font: 12 pt

**Point of Common Coupling (PCC):** The point where the Interconnecting Customer's local electric power system connects to the Company EPS, such as the electric power revenue meter or premises service transformer. See the Company for the location at a particular Interconnecting

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 8

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Customer site.

**Point of Delivery:** A point on the Company EPS where the Interconnecting Customer makes capacity and energy available to the Company. The Point of Delivery shall be specified in the Interconnection Service Agreement.

**Point of Receipt:** A point on the Company EPS where the Company delivers capacity and energy to the Interconnecting Customer. The Point of Receipt shall be specified in the Interconnection Service Agreement.

**Pre-application Report:** shall mean, as described in Section 3.2, a non-binding report of certain information specific to a proposed Facility interconnection location provided to the Interconnecting Customer by the Company prior to the Application.

**Protective Function:** The equipment, hardware and/or software in a Facility (whether discrete or integrated with other functions) whose purpose is to protect against conditions that, if left uncorrected, could result in harm to personnel, damage to equipment, loss of safety or reliability, or operation outside pre-established parameters required by the Interconnection Service Agreement.

**Commented [IN8]:** Consensus proposed terminology for new Section 4.3.1 concerning Export Capacity

**Qualifying Facility:** A generation Facility that has received certification as a Qualifying Facility from the FERC in accordance with the Federal Power Act, as amended by the Public Utility Regulatory Policies Act of 1978.

**Radial Distribution Circuit:** Electrical service from an EPS consisting of one primary circuit extending from a single substation or transmission supply point arranged such that the primary circuit serves Interconnecting Customers in a particular local area.

**Renewable Distributed Generation Resource:** A Facility which is a renewable distributed generation project that, as contemplated, meets the eligibility requirements for net metering contained within R.I.G.L. Title 39 or the eligibility requirements for a standard contract contained within R.I.G.L. Title 39.

**Renewable Energy Resource:** Those resources set forth in R.I.G.L. §39-26-5.

**Renewable Interconnecting Customer:** Entity that owns and/or operates the Renewable Distributed Generation Resource interconnected to the Company EPS, with legal authority to enter into agreements regarding the construction or operation of the Facility. The term “Renewable Interconnecting Customer” as used in the Interconnection Tariff shall be deemed to be synonymous with the term “interconnecting renewable energy customer” as used in R.I. Gen. Laws §39-26.3-4.1.

**Screen(s):** Criteria by which the Company will determine if a proposed Facility’s installation will adversely impact the Company EPS in the Simplified and Expedited Processes as set forth in Section 3.0.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 9

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Simplified Process:** As described in Section 3.1, process steps from initial application to final written authorization for certain inverter-based Facilities of limited scale and minimal apparent grid impact.

**Standard Process:** As described in Section 3.3, process steps from initial application to final written authorization for Facilities that do not qualify for Simplified or Expedited treatment.

**Supplemental Review:** Additional engineering study to evaluate the potential impact of the Facility on the Company EPS so as to determine any requirements for processing the application through the Expedited Process.

**System Improvement:** Economically justified upgrades determined by the Company in the Facility study phase for capital investments associated with improving the capacity or reliability of the EPS that may be used along with System Modifications to serve an Interconnection Customer.

**System Modification:** Modifications or additions to Company facilities that are integrated with the Company EPS for the benefit of the Interconnecting Customer.

**Unintentional Islanding:** A situation where the electrical power from the Facility continues to supply a portion of the Company EPS past the PCC when the Company's transmission or distribution system has ceased providing power for whatever reason (emergency conditions, maintenance, etc.).

**Witness Test:** The Company's right to witness the commissioning testing. Commissioning testing is defined in IEEE Standard 1547-2003.

### 1.3 Forms and Agreements

The following documents for the interconnection process are included as Exhibits:

1. Interconnection Service Agreement for Expedited and Standard Process (Exhibit ~~H1~~) referencing Attachments 1–6 (Attachments 1–5 to be developed by the Company and included as appropriate for each specific Interconnection Service Agreement) as follows:

Attachment 1: Definitions (Section 1.2)

Attachment 2: Description of Facilities, including demarcation of PCC Attachment 3: Description of System Modifications

Attachment 4: Costs of System Modifications and Payment Terms Attachment 5: Special Operating Requirements, if any

Attachment 6: Agreement between the Company and the Company's Retail Customer (to be signed by the Company's retail customer where DG installation and interconnection will be placed, when retail customer is not the owner and/or operator of the distributed

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 10

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

generation facility -- Exhibit ~~H~~J)

2. Application forms:

- a. Simplified Process (Facilities meeting the requirements of Section 3.1) application form and service agreement (Exhibit A)
- b. Generating Facility Expedited/Standard Pre-Application Report form (Exhibit B)
- c. Expedited and Standard Process application form (Exhibit C)

3. Supplemental Review Agreement for those projects which have failed one or more screens in the Expedited Process (Exhibit D)

4. Feasibility Study Agreement (Exhibit E)

5. Pre-Impact Study Review Agreement (Exhibit F)

~~5-6~~ Impact Study Agreement or ISR DG Agreement under the Standard Process (Exhibit ~~G~~F)

~~6-7~~ Detailed Study Agreement for the more detailed study under the Standard Process which requires substantial System Modifications (Exhibit ~~G~~H)

Formatted: Font: 12 pt

**2.0 Basic Understandings**

Customer intends to install a Facility on the Customer's side of the PCC that will be connected electrically to the Company EPS and operate in parallel, synchronized with the voltage and frequency maintained by the Company during all operating conditions. It is the responsibility of the Interconnecting Customer to design, procure, install, operate, and maintain all necessary equipment on its property for connection to the Company EPS. The Customer and the Company shall enter into an Interconnection Service Agreement to provide for parallel operation of a Customer's Facility with Company EPS. A form of this agreement is attached as Exhibit ~~H-1~~I to this Interconnection Tariff. If the Interconnecting Customer or Renewable Interconnecting Customer is not the Customer, an Agreement between the Company and the Company's Customer must be signed and included as an attachment to the Interconnection Service Agreement; a form of this agreement is attached as Exhibit ~~H~~J.

The interconnection of the Facility with the Company EPS must be reviewed for potential impact on the Company EPS under the process described in Section 3.0 and meet the technical requirements in Section 4.0, and must be operated as described under Section 6.0. In order to meet these requirements, an upgrade or other modifications to the Company EPS may be necessary. Subject to the requirements contained in this Interconnection Tariff, the Company or its Affiliate shall modify the Company EPS accordingly. Unless otherwise specified, the Company will build and own, as part of the Company EPS, all facilities necessary to interconnect the Company EPS with the Facility up to and including terminations at the PCC. The Interconnecting Customer shall pay all System Modification costs as set forth in Section 5.0.

A Renewable Interconnecting Customer has the initial option of having the Company do a Feasibility

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 11

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Study prior to continuing on to an ISRDG.

The Interconnecting Customer should consult the Company before designing, purchasing and installing any generation equipment, in order to verify the nominal utilization voltages, frequency, and phase characteristics of the service to be supplied, the capacity available, and the suitability of the proposed equipment for operation at the intended location. Any proposed Facility 250 kW and above must request and receive a Pre-Application Report prior to submitting an Application.

Attempting to operate a generator at other than its nameplate characteristics may result in unsatisfactory performance or, in certain instances, injury to personnel and/or damage to equipment. The Interconnecting Customer will be responsible for ascertaining from the Company, and the Company will diligently cooperate in providing, the service characteristics of the Company EPS at the proposed PCC. The Company will in no way be responsible for damages sustained as a result of the Interconnecting Customer's failure to ascertain the service characteristics at the proposed PCC.

The crossing of a public way by the Interconnecting Customer with any equipment not owned by the Company is prohibited due to public safety reasons. However, the Company will work with local jurisdictions and/or any Interconnecting Customer(s) seeking to connect their proposed Facility to end users in a microgrid and other solutions.

~~Due to voltage regulation issues, Facilities larger than 3 MWs (nameplate capacity), or those that require substation upgrades, may be subject to special interconnection requirements and may require timelines for studies to be conducted on a mutually agreed upon basis versus the timelines noted in Section 3.~~

The Facility should operate in such a manner that does not compromise or conflict with, the safety or reliability of the Company EPS. The Interconnecting Customer should design its equipment in such a manner that faults or other disturbances on the Company EPS do not cause damage to the Interconnecting Customer's equipment.

Authorization to interconnect will be provided once the Interconnecting Customer has met all terms of the interconnection process as outlined below.

This Interconnection Tariff does not cover general distribution service needed to serve the Interconnecting Customer. Please refer to the Company's Terms and Conditions for Distribution Service.

### 3.0 Process Overview

There are four basic paths for interconnection of the Interconnecting Customer's Facility in Rhode Island. They are described below and detailed in Figures 1 and 2 with their accompanying notes. Tables 1 and 2, respectively, describe the timelines and fees for these paths. Unless otherwise noted, the Total Maximum Days from the completed Application through the delivery of an executable ISA set forth in Table 1 of the Interconnection Tariff represents the aggregate processing time allowed for the Company to review an Application for completeness, complete studies (where necessary) and send an executable Interconnection Service Agreement, and may be extended by mutual agreement or

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 12

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

otherwise affected, suspended, extended, or interrupted as specified in this Tariff.

Unless otherwise noted, for Renewable Interconnecting Customer Applications received on or after July 1, 2017, the Total Maximum Days for System Modifications set forth in Table 1 of the Interconnection Tariff represents the aggregate time allowed, commencing on the date of Company's receipt of a Renewable Interconnecting Customer's executed ISA, for the Company to complete the System Modifications, and may be extended by mutual agreement or otherwise affected, suspended, extended, or interrupted as specified in this Tariff.

1. **Simplified** – This is for Listed inverter-based Facilities with a power rating of ~~15 kW or less single phase or 25 kW or less three phase depending on the service configuration~~, and located on radial EPSs under certain conditions. ~~A Listed inverter-based Facility with a power rating of 15 kW or less single phase located on a spot network EPS under certain conditions would also be eligible.~~
2. **Expedited** – This is for Listed Facilities that pass certain pre-specified screens on a radial EPS.
3. **Standard** – This is for all facilities not qualifying for either the Simplified or Expedited interconnection processes on radial and spot network EPSs, and for all Facilities on area network EPSs.
4. **Renewable Interconnecting Customer** – This process is for Customers who are requesting either a Feasibility Study or an ISRDG for renewable Facilities. For these requests, the processes above will be followed except where outlined in the descriptions below, any references to Interconnecting Customer should be construed to be Renewable Interconnecting Customer for this purpose.

All proposed new sources of electric power without respect to generator ownership, dispatch control, or prime mover that plan to operate in parallel with the Company EPS must submit a completed application and pay the appropriate Application Fee to the Company with which it wishes to interconnect. For those projects where a Renewable Interconnecting Customer requests either a Feasibility or an ISRDG study, the Renewable Interconnecting Customer will pay the Feasibility Study fee in lieu of the Application Fee. The application will be acknowledged by the Company, and the Interconnecting Customer will be notified of the application's completeness, and if not complete, the Company will advise the Interconnecting Customer of what is missing in accordance with the timelines set forth in Table 1. Interconnecting Customers who are not likely to qualify for Simplified or Expedited Process may opt to go directly into the Standard Process path and may, if eligible, request that the Company perform a Pre-Impact Study Review. Interconnecting Customers proposing to interconnect on area networks will also go directly to the Standard Process. All other Interconnecting Customers must proceed through a series of screens to determine their ultimate interconnection path. (Interconnecting Customers not sure whether a particular location is on a radial circuit, spot network, or area network should check with the Company serving the proposed Facility location prior to filing and the Company will verify the circuit type upon filing.)

The proposed interconnection of any new Renewable Energy Resource that replaces the same existing Renewable Energy Resource of the same or less nameplate capacity that has been in operation in the

**Commented [IN9]:** Consensus proposed revisions to Simplified process



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 13

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

twelve (12) months preceding notification of such replacement shall be subject to a sixty (60) day review. The purpose of such sixty (60) day review is to allow the Company to determine whether any System Modifications are required to support the interconnection of the replacement Renewable Energy Resource. If there is a need for System Modifications because of an interconnection policy change implemented by the Company, then the System Modification may be included in rates as determined by the Commission. If there is a need for System Modifications only because of a change in the rating or utility disturbance response that adversely affects the impact of the Facility on the distribution system, then the Renewable Interconnecting Customer shall be responsible for the cost of the System Modifications.

The Company will conduct accepted project conferences with all non-residential customers that have been accepted into the Renewable Energy Growth program.

### 3.1 Simplified Process

Interconnecting Customers using Listed ~~single phase~~ inverter-based Facilities with an ability to export power ratings of 15 kW or less at locations receiving single phase secondary service from a single phase transformer, or using Listed three phase inverter-based Facilities with power ratings of 25 kW or less at locations receiving three phase secondary service from a three phase transformer configuration, that matches the phase of the Facility equipment, and requesting an interconnection on radial EPSs, and passing the eligibility criteria and screens outlined in Figure 1. Applications that would otherwise qualify as Simplified but are on a spot or area network will now proceed in the Expedited Process (See Figure 2 for details), where the aggregate Facility capacity on the circuit is less than 15% of circuit annual peak load qualify for Simplified interconnection. There is also a Simplified interconnection path for Listed single phase inverter-based Facilities with power ratings of 15 kW or less requesting an interconnection on spot networks when the aggregate Facility capacity is less than one-fifteenth of the Customer's minimum load.

**Commented [IN10]:** Consensus proposed revisions to Simplified process

The Simplified Process is as follows:

- a. Application process:
  - i. Interconnecting Customer submits a Simplified Process application filled out properly and completely (Exhibit A).
  - ii. Company acknowledges to the Interconnecting Customer receipt of the application within 3 business days of receipt.
  - iii. Company evaluates the application for completeness and notifies the Interconnecting Customer within 10 business days of receipt that the application is or is not complete and, if not, advises what required documents, fees, or other materials from the Interconnecting Customer are missing or are otherwise preventing the Company from accepting the application as complete and ready to proceed to the next step in the process, is missing

A Renewable Interconnecting Customer may request a Feasibility Study. Upon receipt of an executed Feasibility Study Agreement and receipt of the applicable Feasibility Study

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 14

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

fee, the Company shall conduct the Feasibility Study.

- b. The Company verifies Facility equipment passes screens ~~4-5~~ in Figure 1 if a radial EPS, or the screens in Figure 2 if a network EPS. If a Facility fails ~~Screen #5 the System Design Screen~~ in Figure 1, the Company will identify the concerns with the proposed Facility design, and the Interconnecting Customer is required to revise the proposed Facility design and associated application materials to resolve the concerns in order to remain in the Simplified process. If a Facility fails the Service Type & Configuration Screen in Figure 1 while passing all other screens, the Facility will not be automatically evaluated under the Expedited Process. Instead, The Company shall have an additional 20-30 Business Days to review an application where the Facility has failed screen #5 the Service Type & Configuration Screen in Figure 1. In this additional review, the Company will identify any minor System Modifications that may be required and their associated cost estimate to resolve the concerns prior to issuing a conditional approval for the Facility to proceed in the Simplified process.
- c. If approved, without minor System Modifications, the Company signs the application approval line and sends it to the Interconnecting Customer. ~~In certain rare circumstances, If~~ the Company ~~may requires~~ the Interconnecting Customer to pay for minor System Modifications. ~~If so,~~ a description of work and an estimate will be sent ~~back~~ to the Interconnecting Customer for approval prior to the Company signing the application approval line. The Interconnecting Customer would then approve via a signature and payment for the minor System Modifications. Interconnecting Customers in the Simplified Process with minor System Modifications shall have 20 Business Days from the date the cost estimate is issued to pay 100% of the estimated cost for the System Modifications. Once payment has been made, the Company will sign the application approval line and send the executed document to the Interconnecting Customer.
- d. Upon receipt of signed application, the Interconnecting Customer installs the Facility. Then the Interconnecting Customer arranges for inspection of the completed installation by the local electrical wiring inspector, or other authority having jurisdiction, and this person signs the Certificate of Completion. If the Facility was installed by an electrical contractor, this person also fills out the Certificate of Completion.
- e. The Interconnecting Customer returns Certificate of Completion to the Company (refer to Attachment 2 of the Simplified Process Application for the Certificate of Completion).
- f. Following receipt of the Certificate of Completion, the Company may inspect the Facility for compliance with standards by arranging for a Witness Test. The Interconnecting Customer has no right to operate in parallel until a Witness Test has been performed or has been previously waived on the Application Form. The Company is obligated to complete this Witness Test within 10 business days of the receipt of the Certificate of Completion. If the Company does not inspect in 10 business days or by mutual agreement of the Parties, the Witness Test is deemed waived. Regardless of whether or not the Company performs a Witness Test, the Interconnecting Customer shall not operate their Facility until all required System Modifications are constructed by the Company.
- g. Assuming the wiring inspection and/or Witness Test is satisfactory (and the Company has

Formatted: Left, Indent: Left: 0.25"

Commented [IN11]: Consensus proposed revisions to Simplified process

Commented [IN12]: Consensus proposed revisions to Simplified process

Commented [IN13]: Consensus proposed revisions to Simplified process

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 15

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

completed any required System Modifications), the Company notifies the Interconnecting Customer in writing that interconnection is authorized. If the Witness Test is not satisfactory, the Company has the right to disconnect the Facility, and will provide information to the Interconnecting Customer describing clearly what is required for approval.

- h. The Interconnecting Customer has no right to operate in parallel until they have received the Authorization to Interconnect.

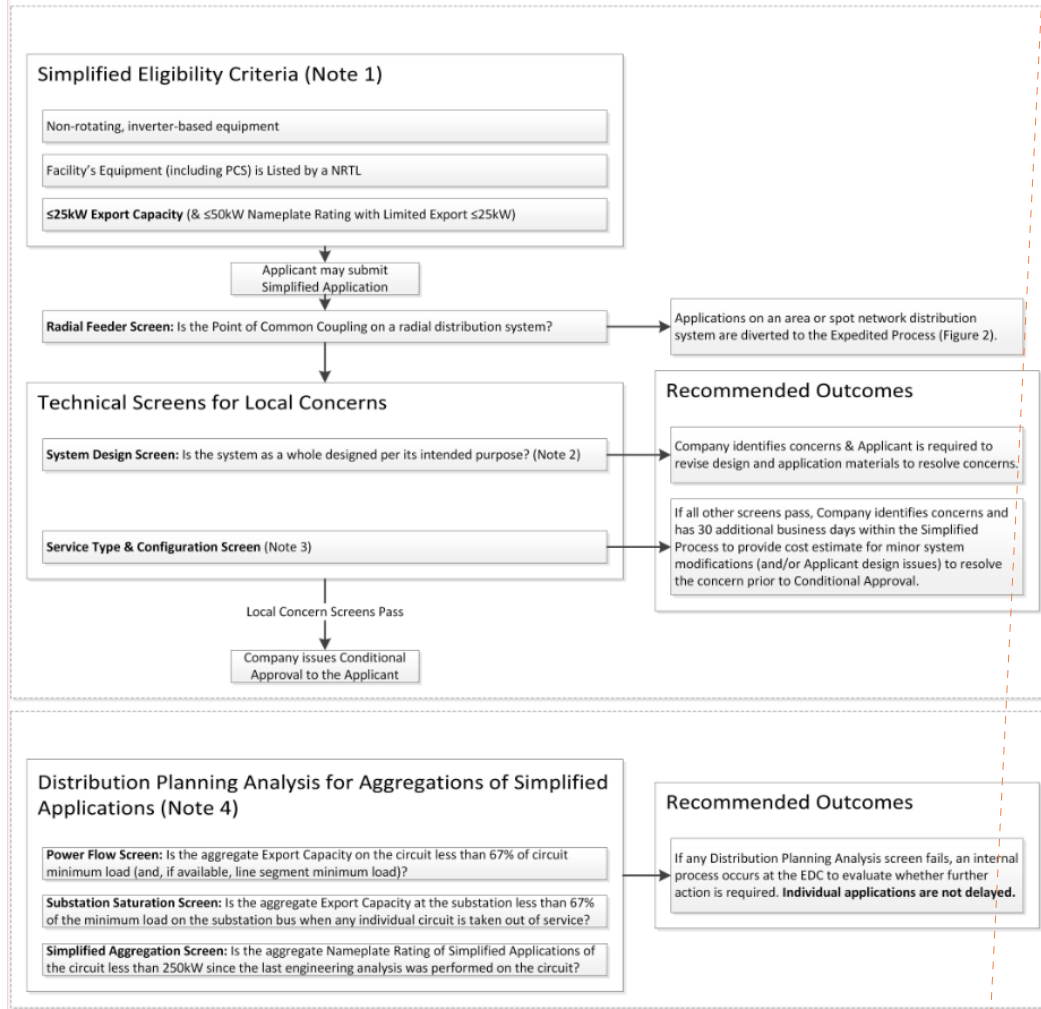
If the Interconnecting Customer does not substantially complete construction within 12 months after receiving approval from the Company, the Company will require the Interconnecting Customer to reapply for interconnection.

R.I.P.U.C. No. [21802244](#)  
Canceling R.I.P.U.C. No. [21632180](#)  
Sheet 16

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Figure 1: Simplified Eligibility and Screening Process**

**Commented [IN14]:** Consensus proposed revisions to Simplified process



**Explanatory Notes to Accompany Figure 1 (only Simplified)**

Simplified Screens Figure1 Note 1 – Eligibility Criteria:

R.I.P.U.C. No. ~~2480~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 17

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

For the purposes of determining eligibility to submit an application in the Simplified interconnection process, all Facility equipment that will operate in Parallel with the Company EPS must meet the following criteria: (a) all generating and ESS equipment must be non-rotating and inverter-based, (b) all inverters and/or components intended to limit the Export Capacity of the system must be certified as Listed by a NRTL, and (c) the aggregate Export Capacity of the equipment on the site must be less than or equal to 25kW.

Where a mechanism is proposed to limit Export Capacity below the Nameplate Rating of the aggregate generating and ESS equipment in order to comply with the Export Capacity thresholds defined above, the aggregate Nameplate Rating of all generating and ESS equipment that will operate in Parallel with the Company EPS may not exceed 50kW. If the aggregate Nameplate Rating exceeds 50kW (regardless of the Export Capacity), the application is not eligible to be submitted in the Simplified interconnection process. Additionally, while the mechanism to limit Export Capacity may monitor the real-time load on the site to ensure compliance with the Export Capacity eligibility criteria, under no circumstances may the mechanism to limit Export Capacity be contingent upon an assumed minimum load on the site (i.e. when the site load is zero, the Facility as a whole must remain in compliance with the eligibility criteria). While an Interconnecting Customer may propose any mechanism to limit Export Capacity that is permitted in Section 4.3 of the Interconnection Tariff, Facilities that rely on a Power Control System (PCS) may be subject to testing standards other than IEEE Standard 1547. Under such circumstances the PCS shall be tested by a NRTL to the specific standard publication relevant to such devices. Interconnecting Customers who can demonstrate Facility compliance with such a standard, with the testing done by a NRTL, will be eligible for the Expedited Process, and may be eligible for the Simplified Process upon review by the Company.

Facilities with inverter-based equipment will be considered Listed upon demonstrating that such equipment has successfully passed all pertinent tests performed by a NRTL to conform with the latest version of IEEE Standard 1547. IEEE Standard 1547 includes design specifications, operational requirements, and a list of tests that are required for Facilities. IEEE Standard 1547.1 describes how to conduct tests to show compliance with provisions of IEEE Standard 1547. To meet the eligibility criteria to submit an application in the Simplified interconnection process, Interconnecting Customers must provide information or documentation that demonstrates how the Facility is in compliance with the IEEE Standard 1547.1. A Facility will be deemed to be in compliance with the IEEE Standard 1547.1 if the Company previously determined it was in compliance. Interconnecting Customers who can demonstrate Facility compliance with IEEE Standard 1547.1, with the testing done by a NRTL, will be eligible for the Expedited Process, and may be eligible for the Simplified Process upon review by the Company. Subject to the Facility passing the System Design Screen, generating and ESS equipment that is not capable of operating in Parallel with the Company EPS (i.e. only operating when the Facility is isolated from the Company EPS) will not be considered as part of the Export Capacity and/or aggregate Nameplate Rating of the Facility for the purposes of determining eligibility for an Interconnecting Customer to submit an application in the Simplified interconnection process.

Simplified Screens Figure 1 Note 2 – System Design Screen:

This screen identifies the need for the Company to review the Interconnection Application, and all of the associated material submitted by the Interconnecting Customer, to determine if the proposed design of the Facility as a whole is likely to operate as intended. In particular, the Company will consider the

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 18

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

manufacturer's specifications for all the constituent components of the Facility within the context of the site plan, line diagram, operating schedule, project narrative and any other supplemental materials provided by the Interconnecting Customer that may impact the operation of the proposed Facility in Parallel with the Company's EPS. The Company will also consider whether the proposed Facility design as a whole will comply with the Company's technical standards and may also consider (as directed by the Commission) whether the proposed Facility design complies with the proposed incentive program(s) identified in the Interconnection Application.

Any application (single-phase or three-phase) that exceeds an aggregate Nameplate Rating of 25kW (regardless of Export Capacity) must have an electrical one-line diagram with a P.E. stamp from an electrical engineer certified in Rhode Island.

Simplified Screens Figure 1 Note 3 – Service Type & Configuration Screen:

This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including the service transformer configuration and service type to limit the potential for creating unacceptable voltage imbalance, over-voltage or under-voltage conditions, or service equipment overloads on the Company EPS due to a mismatch between the size and phasing of the energy source, the service loads fed from the service transformer(s), and the service equipment ratings.

<u>Primary Distribution Line Type</u>	<u>Type of Interconnection to Primary Distribution Line</u>	<u>Screen Result</u>
<u>Three-phase, three-wire</u>	<u>Three-phase, phase-to-phase</u>	<u>Pass</u>
	<u>Single-phase, phase-to-phase</u>	<u>Pass</u>
	<u>Other configurations</u>	<u>Fail</u>
<u>Three-phase, four-wire</u>	<u>Effectively-grounded three-phase</u>	<u>Pass</u>
	<u>single-phase, line-to-neutral</u>	<u>Pass</u>
	<u>Other configurations</u>	<u>Fail</u>

Secondary Voltage-Rise: The purpose of this screen is to maintain the +/-5% voltage boundaries for the nominal service voltage at the Point of Common Coupling for all customers (including other customers in the general vicinity of the proposed Facility).

Shared Overhead: If the Facility is to be interconnected on a single-phase overhead transformer that includes at least some portion of shared secondary conductor, the aggregate Export Capacity on the shared secondary, including the Facility's Export Capacity, will not exceed: (a) 25 kilovolt-ampere ("kVA"); (b) the kVA nameplate rating of the service transformer; or (c) a kVA threshold that in combination with the secondary conductor will be likely to cause the voltage on the secondary conductor to be greater than 5 % nominal service voltage.

Shared Underground: If the Facility is to be interconnected on a single-phase underground transformer that includes at least some portion of shared secondary conductor, the Facility shall fail this screen and require additional review unless the Company has sufficient information

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 19

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

readily available at the time of the screening review to make a determination that voltage-rise concerns are unlikely once the Facility is operational.

Dedicated Overhead or Underground: If the Facility is to be interconnected via a dedicated single-phase transformer (and/or on a dedicated service drop or underground service conductor) that does not include any shared-secondary conductor, the aggregate Export Capacity on the dedicated secondary, including the Facility's Export Capacity, will not exceed (a) 25 kilovolt-ampere ("kVA") or (b) the kVA nameplate rating of the service transformer.

Other Considerations: For overhead service transformers (regardless of whether the Facility is to be connected via a shared or dedicated configuration), if the Facility is to be interconnected on an existing single-phase service drop consisting (at least in part) of #4 size conductor, the Company may determine that the Facility fails this screen and requires additional review. For any other conductor sizes or service configurations that are not explicitly listed in this screen but are likely to cause voltage-rise concerns once the Facility is operational (based on the information that is readily available to the Company at the time of the screening review), the Company may determine the Facility fails this screen and requires additional review. If the Company identifies additional common scenarios that lead to voltage-rise concerns for Facilities that would otherwise have passed this screen based on the aggregate Export Capacity threshold, it will post examples or descriptions of those scenarios on its website and/or in its technical standards.

If the Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition of its Nameplate Rating will not create an imbalance between the two sides of the 240 volt service of more than 20% of the rating of the service transformer.

Simplified Screens Figure 1 Note 4 – Distribution Planning Analysis for Aggregations of Simplified Applications:

Distribution Planning Analysis in parallel with interconnection processes: If the aggregate Export Capacity and/or Nameplate Rating of Simplified applications on the circuit is greater than the thresholds identified in the diagram, a more expansive study may be required, but an individual Simplified application that passes the technical screens for local concerns should not be delayed as a result of the Distribution Planning Analysis screens in receiving: (a) Conditional Approval as long as the Company has a clear funding source for any incremental work triggered by an aggregation of Simplified applications in an area or (b) Authority to Interconnect as long as there are no immediate safety or reliability concerns are present.

Power Flow Screen: On a typical radial distribution EPS circuit ("feeder") the annual minimum load as referenced at the protective device at the supply point of the circuit. A circuit may also be supplied from a tap on a higher-voltage line, sometimes called a subtransmission line. On more complex radial EPSs, where bidirectional power flow is possible due to alternative circuit supply options ("loop service"), the normal supply point is the loop tap. If minimum load is not readily available, the minimum load will be estimated by taking a percentage of peak load.

**Commented [IN15]:** Consensus proposed revisions to Simplified process

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 20

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

### 3.2 Pre-Application Reports

Prior to submitting an Interconnection Application through either the Expedited or Standard Process (see Sections 3.3 and 3.4), all Interconnecting Customers with Facilities that are 250 kW or greater must request and receive a Pre-Application Report from the Company. An Application for Facilities 250 kW or greater will not be deemed to be complete without a Pre- Application Report. The Pre-Application Form is provided in Exhibit B. The Pre-Application Report is optional at the election of the Interconnecting Customer for those Facilities that are less than 250 kW. ~~There is no fee for either a mandatory or optional Pre-Application Report. There is a fee required for both mandatory and optional Pre-Application Reports. However, the cost of the Pre-Application fee will be deducted from the cost of the Application fee as long as the Interconnecting Customer submits an Interconnection Application within fifteen (15) Business Days of receiving the completed Pre-Application Report from the Company. Please see Table 2 – Fee Schedules for pricing.~~

Following the submission for either a mandatory or optional Pre-Application Report, the Company shall provide the Report within 10 Business Days assuming a reasonable number of applicants under review. The Pre-Application Report produced by the Company is non-binding, and, if the Interconnecting Customer wishes to proceed, the Interconnecting Customer must still successfully apply to interconnect to the Company's EPS. ~~If the Company does not produce the Pre-Application Report within 10 Business Days, the Interconnecting Customer may proceed to apply to interconnect to the Company's EPS without a Pre-Application Report, and the Company shall refund the Pre-Application fee to the Interconnecting Customer.~~ No person or entity, or affiliate or agent thereof, may request more than ten (10) Pre-Application Reports in any one-week period.

The Company shall immediately advise the Interconnecting Customer if there will be a delay in providing the Pre-Application Report due to the number of pending requests.

The Company shall file an annual report with the Commission by March 1 annually. The annual report shall contain the following: (1) the weekly average of Pre-Application Reports for the prior calendar year; (2) the weekly minimum and maximum number of Pre-Application Reports for the prior calendar year; and (3) the number of delays that were issued due to exceeding a reasonable number of applications under review during the prior calendar year.

The Company shall provide the following information for the proposed Facility interconnection location in the Pre-Application Report:

- Circuit voltage at the substation;
- Circuit name;
- Circuit voltage at proposed Facility;
- Substation name;
- Substation transformer rating;



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 21

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

- Whether Single or three phase is available near site; If single phase – distance from three phase service;
- Aggregate connected Facilities (kW) on circuit;
- Aggregate connected Facilities (kW) on the substation transformer and submitted complete applications of Facilities (kW) that have not yet been interconnected;
- Whether 3V0 is deployed or scheduled for deployment on the circuit or substation;
- Submitted complete applications of Facilities (kW) on circuit that have not yet been interconnected;
- Whether the Interconnecting Customer is served by an area network, a spot network, or radial system;
- Identification of distribution feeders or sub-transmission lines within ¼ mile of the proposed interconnection site through a snap-shot of GIS map or other means; and
- For the nearest available feeder, the circuit rating and approximate circuit length from the proposed Facility to the substation;
- Whether the proposed Facility is likely to be on the Standard track;
- Whether an ASO has informed the Company that an ASO Study is required, or the Company is aware of an on-going ASO Study for the proposed Facility interconnection location;
- Other obvious system constraints or critical items that may impact the proposed Facility.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 22

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

### 3.3 Expedited Process

Other Interconnecting Customers not qualifying for the Simplified Process or not in the Standard Process must pass a series of screens before qualifying for Expedited interconnection. Depending on whether one or more screens are passed, additional steps may be required. The Expedited Process is as follows:

- a. Application process:
  - i. Interconnecting Customer submits an Expedited/Standard application filled out properly and completely (Exhibit C).
  - ii. Company acknowledges to the Interconnecting Customer receipt of the application within 3 business days of receipt.
  - iii. Company evaluates the application for completeness and notifies the Interconnecting Customer within 10 business days of receipt that the application is or is not complete and, if not, advises what required documents, fees, or other materials from the Interconnecting Customer are what is missing or are otherwise preventing the Company from accepting the application as complete and ready to proceed to the next step in the process.
  - iv. A Renewable Interconnecting Customer may request a Feasibility Study. Upon receipt of an executed Feasibility Study Agreement and receipt of the applicable Feasibility Study fee, the Company shall conduct the Feasibility Study. If the results of the Feasibility Study allow the Company to provide an executable ISA, it will do so. Otherwise, the Company will provide an ISR DG Study Agreement.
- b. Company then conducts an Initial Review which includes applying the eligibility criteria and screening methodology in Figure 2 (Screens 1 through 8 in Figure 1). If a Facility fails the System Design Screen in Figure 2, the Company will identify the concerns with the proposed Facility design, and the Interconnecting Customer is required to revise the proposed Facility design and associated application materials to resolve the concerns in order to remain in the Expedited process.
- c. The Company reserves the right to conduct internal studies if deemed necessary and at no additional cost to the Interconnecting Customer, such as but not limited to: protection review, aggregate harmonics analysis review, aggregate power factor review and voltage regulation review. Likewise, when the proposed interconnection may result in reversed load flow through the Company's load tap changing transformer(s), line voltage regulator(s), control modifications necessary to mitigate the effects may be made to these devices by the Company at the Interconnecting Customer's expense or the Facility may be required to limit its output so reverse load flow cannot occur or to provide reverse power relaying that trips the Facility.

As part of the Expedited Process, the Company will assess whether any System Modifications are required for interconnection, even if the project passes all of the applicable Screens. If the

Formatted: Font: 12 pt

Formatted: Space Before: 0 pt

Formatted: Left, Indent: Left: 0.25", Right: 0", Tab stops: Not at 0.57"

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 23

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

needed modifications are minor, that is, the requirement can be determined within the time allotted through the application fee and any internal studies, then the modification requirements, reasoning, and costs for these minor modifications will be identified and included in the executable Interconnection Service Agreement. If the requirements cannot be determined within the time and cost allotted in the Initial Review and any internal studies, the Company may require that the project undergo additional review to determine those requirements. The time allocated for additional review is a maximum of 10 hours of engineering time.

If after this review, the Company still cannot determine the requirements, the Company will document the reasons why and will meet with the Interconnecting Customer to determine how to move the process forward to the Parties' mutual satisfaction. In all cases, the Interconnecting Customer will pay for the cost of modifications, if any, as discussed in Section 5.0.

- d. Assuming that all applicable Screens are passed and the Company has no concerns with the proposed interconnection, the Company sends the Interconnecting Customer an executable Interconnection Service Agreement and a quote for any required System Modifications or reasonable Witness Test costs. No other studies will be required.
- e. If one or more Screens are not passed, the Company will provide a Supplemental Review Agreement. If the Interconnecting Customer executes the agreement, the Company will conduct the review. If the Supplemental Review determines the requirements for processing the application through the Expedited Process including any System Modifications, then the modification requirements, reasoning, and costs for these modifications as defined in Section 5.0 will be identified and included in an executable Interconnection Service Agreement sent to the Interconnecting Customer for execution. If the Supplemental Review does not determine the requirements, it will include a proposed Impact Study Agreement or ISRDG Agreement as part of the Standard Process which will include an estimate of the cost of the study. Even if a proposed project initially fails a particular Screen in the Expedited Process, if Supplemental Review shows that it can return to the Expedited Process then it will do so. Supplemental Review includes up to 10 hours of engineering time.
- f. Interconnecting Customer returns the signed Interconnection Service Agreement which is then executed by the Company.
- g. Interconnecting Customer completes installation and, upon receipt of payment, the Company completes System Modifications, if required.
- h. Company inspects completed installation for compliance with standards and attends Witness Test, if required.
- i. Interconnecting Customer sends Certificate of Completion to Company.
- j. Assuming inspection is satisfactory, the Company notifies Interconnecting Customer in writing that interconnection is authorized. The Company may, in its sole and exclusive discretion, authorize a Facility to interconnect prior to the completion of the System Modifications, provided, however, that any additional terms and conditions related to such authorization

R.I.P.U.C. No. [21802244](#)  
Canceling R.I.P.U.C. No. [21632180](#)  
Sheet 24

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

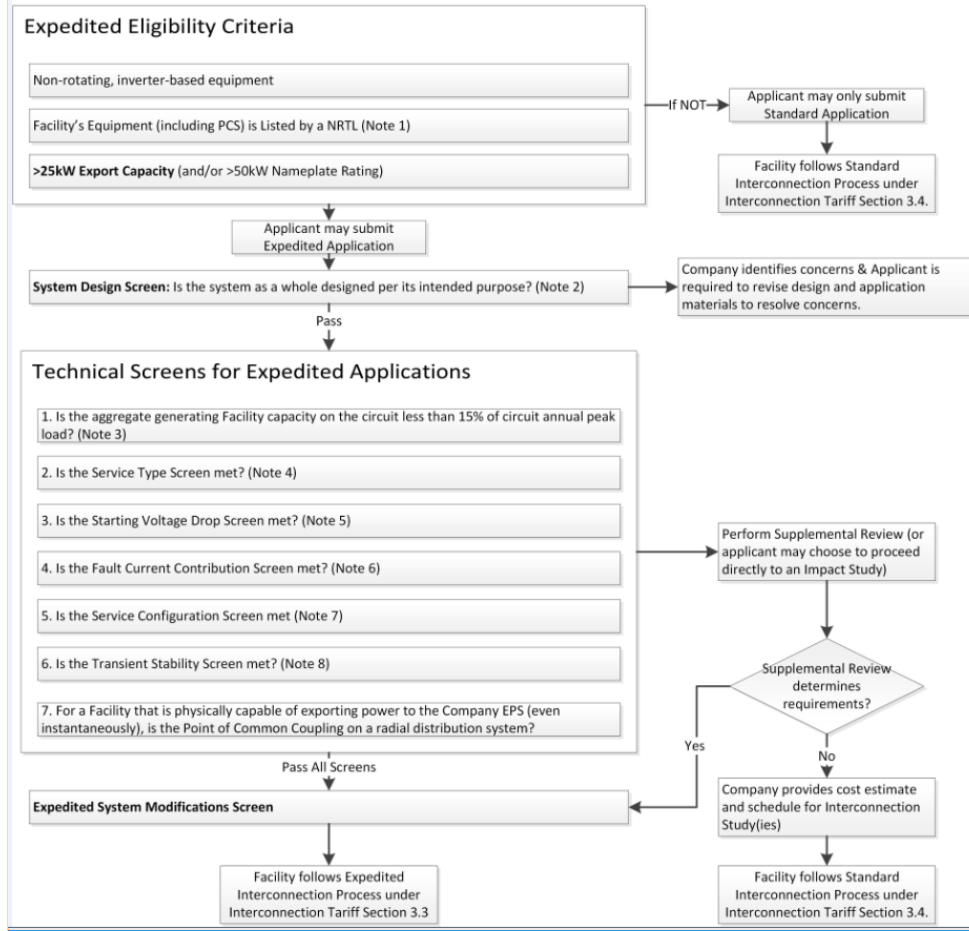
(which may include, without limitation, disconnection, curtailment, construction timeframes, and indemnification) shall be agreed to by the Interconnecting Customer and detailed in the ISA.

- k. The Interconnecting Customer has no right to operate in parallel until it has received the Authorization to Interconnect.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 25

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Figure 2: Expedited Eligibility and Screening Process**



**Commented [IN16]:** Consensus proposed revisions to Expedited process

**Explanatory Notes to Accompany Figure 2 (Expedited Only)**

**Expedited Screens Figure 2 Note 1 – Eligibility Criteria:**

For the purposes of determining eligibility to submit an application in the Expedited interconnection process, all Facility equipment that will operate in Parallel with the Company EPS must meet the following criteria: (a) all generating and ESS equipment must be non-rotating and inverter-based and

R.I.P.U.C. No. ~~24802244~~  
Canceling R.I.P.U.C. No. ~~24632180~~  
Sheet 26

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

(b) all inverters and/or components intended to limit the Export Capacity of the system must be certified as Listed by a NRTL. Applications submitted in the Simplified interconnection process that fail the Screens in Figure 1 will be diverted to the Expedited interconnection process.

Where a mechanism is proposed to limit Export Capacity below the Nameplate Rating of the aggregate generating and ESS equipment in order to pass the Screens in Figure 2 and/or avoid the need for System Modifications, the mechanism to limit Export Capacity may monitor the real-time load on the site to ensure compliance with the Company technical standards; however, under no circumstances may the mechanism to limit Export Capacity be contingent upon an assumed minimum load on the site (i.e. when the site load is zero, the Facility as a whole must remain in compliance with the eligibility criteria). While an Interconnecting Customer may propose any mechanism to limit Export Capacity that is permitted in Section 4.3 of the Interconnection Tariff, Facilities that rely on a Power Control System (PCS) may be subject to testing standards other than IEEE Standard 1547. Under such circumstances the PCS shall be tested by a NRTL to the specific standard publication relevant to such devices. Interconnecting Customers who can demonstrate Facility compliance with such a standard, with the testing done by a NRTL, will be eligible for the Expedited Process.

Facilities with inverter-based equipment will be considered Listed upon demonstrating that such equipment has successfully passed all pertinent tests performed by a NRTL to conform with the latest version of IEEE Standard 1547. IEEE Standard 1547 includes design specifications, operational requirements, and a list of tests that are required for Facilities. IEEE Standard 1547.1 describes how to conduct tests to show compliance with provisions of IEEE Standard 1547. To meet the eligibility criteria to submit an application in the Expedited interconnection process, Interconnecting Customers must provide information or documentation that demonstrates how the Facility is in compliance with the IEEE Standard 1547.1. A Facility will be deemed to be in compliance with the IEEE Standard 1547.1 if the Company previously determined it was in compliance. Interconnecting Customers who can demonstrate Facility compliance with IEEE Standard 1547.1, with the testing done by a NRTL, will be eligible for the Expedited Process, and may be eligible for the Simplified Process upon review by the Company. Subject to the Facility passing the System Design Screen, generating and ESS equipment that is not capable of operating in Parallel with the Company EPS (i.e. only operating when the Facility is isolated from the Company EPS) will not be considered as part of the Export Capacity and/or aggregate Nameplate Rating of the Facility for the purposes of determining eligibility for an Interconnecting Customer to submit an application in the Expedited interconnection process.

Expedited Screens Figure 2 Note 2 – System Design Screen:

This screen identifies the need for the Company to review the Interconnection Application, and all of the associated material submitted by the Interconnecting Customer, to determine if the proposed design of the Facility as a whole is likely to operate as intended. In particular, the Company will consider the manufacturer's specifications for all the constituent components of the Facility within the context of the site plan, line diagram, operating schedule, project narrative and any other supplemental materials provided by the Interconnecting Customer that may impact the operation of the proposed Facility in Parallel with the Company's EPS. The Company will also consider whether the proposed Facility design as a whole will comply with the Company's technical standards and may also consider (as directed by the Commission) whether the proposed Facility design complies with the proposed incentive program(s) identified in the Interconnection Application.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 27

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Any application (single-phase or three-phase) that exceeds an aggregate Nameplate Rating of 25kW (regardless of Export Capacity) must have an electrical one-line diagram with a P.E. stamp from an electrical engineer certified in Rhode Island.

Expedited Screens Figure 2 Note 3 – Aggregate Capacity:

On a typical radial distribution EPS circuit (“feeder”) the annual peak load is measured at the substation circuit breaker, which corresponds to the supply point of the circuit. A circuit may also be supplied from a tap on a higher-voltage line, sometimes called a subtransmission line. On more complex radial EPSs, where bidirectional power flow is possible due to alternative circuit supply options (“loop service”), the normal supply point is the loop tap.

Expedited Screens Figure 2 Note 4 – Service Type Screen:

This screen includes a review of the type of electrical service provided to the Interconnection Customer, including the service transformer configuration and service type to limit the potential for creating unacceptable voltage imbalance, over-voltage or under-voltage conditions, or service equipment overloads on the Company EPS due to a mismatch between the size and phasing of the energy source, the service loads fed from the service transformer(s), and the service equipment ratings.

Expedited Screens Figure 2 Note 5 – Voltage Drop Screen:

This Screen only applies to Facilities that start by motoring the generating unit(s) or the act of connecting synchronous generators. The voltage drops should be less than the criteria below. There are two options in determining whether Starting Voltage Drop could be a problem. The option to be used is at the Company’s discretion:

**Option 1:** The Company may determine that the Facility’s starting inrush current is equal to or less than the continuous ampere rating of the Facility’s service equipment.

**Option 2:** The Company may determine the impedances of the service distribution transformer (if present) and the secondary conductors to the Facility’s service equipment and perform a voltage drop calculation. Alternatively, the Company may use tables or nomographs to determine the voltage drop. Voltage drops caused by starting a generating unit as a motor must be less than 2.5% for primary interconnections and 5% for secondary interconnections.

Expedited Screens Figure 2 Note 6 – Fault Current Contribution Screen:

The purpose of this Screen is to ensure that fault (short-circuit) current contributions from all Facilities will have no significant impact on the Company’s protective devices and EPS. All of the following criteria must be met when applicable:

- a. The proposed Facility, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit’s maximum fault current under normal operating conditions at the point on the high voltage (primary) level nearest the proposed PCC.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 28

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

- b. The proposed Facility, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or Interconnecting Customer equipment on the EPS to exceed 85% of the short-circuit interrupting capability. In addition, the proposed Facility will not be installed on a circuit that already exceeds 85% of the short-circuit interrupting capability.
- c. When measured at the secondary side (low side) of a shared distribution transformer, the short-circuit contribution of the proposed Facility must be less than or equal to 2.5% of the interrupting rating of the Company's service equipment.

Coordination of fault-current protection devices and systems will be examined as part of this Screen.

Expedited Screens Figure 2 Note 7 – Service Configuration Screen:

This Screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over voltages on the Company EPS due to a loss of ground during the operating time of any anti-islanding function.

<u>Primary Distribution Line Type</u>	<u>Type of Interconnection to Primary Distribution Line</u>	<u>Screen Result</u>
<u>Three-phase, three-wire</u>	<u>Three-phase, phase-to-phase</u>	<u>Pass</u>
	<u>Single-phase, phase-to-phase</u>	<u>Pass</u>
	<u>Other configurations</u>	<u>Fail</u>
<u>Three-phase, four-wire</u>	<u>Effectively-grounded three-phase</u>	<u>Pass</u>
	<u>single-phase, line-to-neutral</u>	<u>Pass</u>
	<u>Other configurations</u>	<u>Fail</u>

If the proposed generator is to be interconnected on a single-phase transformer shared secondary, the aggregate generation and ESS capacity on the shared secondary, including the proposed generator, will not result in over-voltage concerns.

If the proposed generator is single-phase and is to be interconnected on a center tap neutral of a 240-volt service, its addition will not create an imbalance between the two sides of the 240-volt service of more than 20% of nameplate rating of the service transformer.

Expedited Screens Figure 2 Note 8 – Transient Stability Screen:

The proposed Facility, in aggregate with other Facilities interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the Facility proposes to interconnect, will not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., 3 or 4 transmission voltage level buses from the PCC).

**Commented [IN17]:** Consensus proposed revisions to Expedited process



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 29

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

### 3.4 Standard Process

The Standard Process has the longest maximum time period and highest potential costs. There are three ways to enter the Standard Process:

~~5.1.~~ Interconnecting Customers may choose to proceed immediately to the Standard Process. Application process:

- i. Interconnecting Customer submits an Expedited/Standard Application filled out properly and completely (Exhibit C).
- ii. Company acknowledges to the Interconnecting Customer receipt of the application within 3 business days.
- iii. Company evaluates the application for completeness and notifies the Interconnecting Customer within 10 business days of receipt that the application is or is not complete and, if not, advises what required documents, fees, or other materials from the Interconnecting Customer are what is missing or are otherwise preventing the Company from accepting the application as complete and ready to proceed to the next step in the process.
- ~~iv. A Renewable Interconnecting Customer may initially request a Feasibility Study prior to requesting an ISRDC, but the applicant is not required to do so. Upon receipt of an executed Feasibility Study Agreement and receipt of the applicable Feasibility Study fee, the Company shall conduct the Feasibility Study.~~

~~v. If the Renewable Interconnecting Customer requests a follow-up ISRDC, the Renewable Interconnecting Customer shall execute an ISRDC Agreement and send in the appropriate payment as per Table 2 and continue on with process as outlined below.~~

~~6.2.~~ Based upon the results of the initial and Supplemental Reviews, Interconnecting Customers may be required to enter the Standard Process.

~~7.3.~~ Based on the results of the Screens in Figure 2 for networks, Interconnecting Customers may be required to enter the Standard Process.

The Standard Process is as follows:

Once the application has entered the Standard Process, as described in the previous section, then the Company shall perform one of the following steps within the relevant timeframes provided in Table 1 and fees provided in Table 2:

- a) If requested to do so by a Renewable Interconnecting Customer, the Company shall perform a Feasibility Study prior to the Interconnecting Customer requesting an ISRDC. Upon receipt of an executed Feasibility Study Agreement and receipt of the applicable Feasibility Study fee, the Company shall conduct the Feasibility Study.

**Formatted:** Right: 0", Space Before: 0 pt, Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Indent at: 0.5", Tab stops: Not at 0.58"

**Formatted:** Font: 12 pt

**Formatted:** Right: 0", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Indent at: 0.5", Tab stops: Not at 0.58"

**Formatted:** Right: 0", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Indent at: 0.5", Tab stops: Not at 0.58"

**Formatted:** Indent: Left: 0.25"

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 30

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

~~a)b)~~ If requested to do so by any Interconnecting Customer with one or more applications submitted concurrently with an Aggregate Nameplate Rating greater than 1 MW, the Company shall perform a Pre-Impact Study Review prior to the Interconnecting Customer requesting an Impact Study (or if eligible an ISRDG). Upon receipt of an executed Pre-Impact Study Review

Agreement and receipt of the estimated Pre-Impact Study Review fee, the Company shall conduct the Pre-Impact Study Review.

~~b)c)~~ If the Company has already performed a Supplemental Review or provided results from the Screens in Figure 2 for networks (or if otherwise requested by the Interconnecting Customer with a complete application), the Company shall proceed directly to performing an Impact Study (or if eligible an ISRDG). Refer to paragraph d. below for the requirements for initiating an Impact Study (or if eligible an ISRDG).

~~c)d)~~ If the Interconnecting Customer does not otherwise request that the Company proceed with any of the options above, the Company will conduct a Standard Process Initial Review. Once the Initial Review is complete, the Company shall provide pertinent information such as:

- i. The available fault current at the proposed location;
- ii. The existing peak loading on the lines in the general vicinity of the Facility;
- iii. The configuration of the distribution lines;
- ~~iv.~~ Whether an ASO has informed the Company that an ASO Study is required, or the Company is aware of an on-going ASO Study for the proposed Facility interconnection location;
- v. Other obvious system constraints or critical items that may impact the proposed Facility.

~~d)e)~~ If ~~t~~The Company ~~will~~ conducted an Initial Review, Feasibility Study, Pre-Impact Study Review, or Supplemental Review, the Interconnecting Customer may request that ~~includes a scoping meeting/discussion with the Interconnecting Customer (if necessary) Company within ten (10) business days of receiving the relevant report to review the application and the results provided in the report prior to proceeding to an Impact Study (or if eligible an ISRDG). At the scoping meeting the Company will provide pertinent information such as:~~

- ~~• The available fault current at the proposed location;~~
- ~~• The existing peak loading on the lines in the general vicinity of the Facility;~~
- ~~• The configuration of the distribution lines.~~

A Renewable Interconnecting Customer may initially request a Feasibility Study prior to requesting an ISRDG, but the applicant is not required to do so. Upon receipt of an executed Feasibility Study Agreement and receipt of the applicable Feasibility Study fee, the Company will conduct the Feasibility Study.

~~e)f)~~ The e-Company provides an Impact Study Agreement, or an ISRDG Agreement, including a

Formatted: Indent: Left: 0.58", No bullets or numbering

R.I.P.U.C. No. ~~24802244~~  
Canceling R.I.P.U.C. No. ~~24632180~~  
Sheet 31

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

cost estimate for the study or the costs for an ISRDC as outlined in Table 2. When the Interconnecting Customer signs and returns the Agreement with the fee identified, the Company shall commence the study. If necessary, the Company may put the study on hold while the Interconnecting Customer provides additional information or documentation required to complete the study. Where there are ~~other~~ potentially Affected Systems, and no single Party is in a position to prepare an Impact Study covering all potentially Affected Systems, the Company will coordinate with the Interconnecting Customer, the Affected System Operator(s), and/or the Affected System Owner(s) will coordinate but not be responsible for the timing of any studies required to determine the impact of the interconnection request on other potentially Affected Systems. The Interconnecting Customer will be directly responsible to the potentially Affected System operators for all costs of any additional studies required to evaluate the impact of the interconnection on the potentially Affected Systems; provided, however, the Company may, in its sole discretion, elect to include the additional Affected System study costs in the Company's cost estimates, in which case the Company will detail the separate Affected System study costs, and the Interconnecting Customer will pay such costs to the Company (and will be responsible for any and all actual costs thereof). The timelines in Table 1 will be affected if the ISO-NE's Operating Procedure 14 will be required and/or transmission upgrades or studies are needed for Affected Systems. This could occur, without limitation, if the Interconnecting Customer's Facility is greater than or equal to 5 MWs or if the aggregate capacity of Facilities connected (which are on the same feeder and are physically close to each other) is greater than or equal to 5 MWs. The Company will, when such information becomes available, communicate to the Interconnecting Customer the plan for conducting the ASO Study, the responsibilities of each party, the scope of the ASO Study, the expected timeframe for completion, and the estimated cost of the ASO Study. Where an ASO Study may be required, the Interconnecting Customer, after consultation with the Company, may elect to proceed with the Impact Study or ISRDC and the ASO Study concurrently. In the event the ASO Study invalidates the initial assumptions used to concurrently complete the Impact Study or ISRDC, the Company will provide an amended Impact Study or ISRDC Agreement with a cost estimate and expected timeframe needed to recomplete the Impact Study or ISRDC with the updated assumptions. The new timeframe will not exceed the timeline in Table 1 for completion of an Impact Study or ISRDC respectively.

g) Once the Interconnecting Customer executes the Impact Study Agreement, or an ISRDC Agreement, and pays pursuant to the terms thereof, the Company will conduct the Impact Study or ISRDC.

h) If the Company determines, in accordance with Good Utility Practice, that the System Modifications to the Company EPS are not substantial (i.e., no substation upgrades, etc.), the Impact Study or ISRDC will determine the scope and cost of the modifications as defined in Section 5.0. If the Company determines, in accordance with Good Utility Practice, that the System Modifications to the Company EPS are substantial, the Impact Study or ISRDC will produce an estimate for the modification costs, including a breakdown of line item details as available based on the engineering performed in the study (within  $\pm 25\%$ ) and a Detailed Study Agreement and estimated Detailed Study cost for Interconnecting Customer's approval. For Facilities requiring completion of an ASO Study, such estimate shall not include any Affected System Owner and/or Affected System Operator costs for studies or necessary system

Formatted: Font: 12 pt

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 32

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

modifications to the Affected System. The Company shall coordinate with the Affected System Operator(s) and/or Affected System Owner(s) and communicate to the Interconnecting Customer the ASO's estimated study and ASO upgrade system modification costs as such cost estimates become available.

~~g)j)~~ The Interconnecting Customer will have 10 business days to provide comments on the Impact Study.

~~h)j)~~ Once the Interconnecting Customer executes the Detailed Study Agreement and pays pursuant to the terms thereof, the Company will conduct the Detailed Study.

~~i)k)~~ Upon completion of any necessary studies and upon request from the customer, the Company shall send the Interconnecting Customer an executable Interconnection Service Agreement including a quote for any required System Modifications and reasonable Witness Test costs, assuming the customer has met all necessary obligations up to this point.

~~j)l)~~ Interconnecting Customer returns signed Interconnection Service Agreement.

~~k)m)~~ Interconnecting Customer completes installation and Company completes System Modifications, if required.

~~l)n)~~ Company inspects completed installation for compliance with requirements and attends Witness Test, if required.

~~m)o)~~ Interconnecting Customer sends Certificate of Completion to Company.

~~n)p)~~ Assuming inspection is satisfactory, the Company notifies Interconnecting Customer in writing that interconnection is authorized. The Company may, in its sole and exclusive discretion, authorize a Facility to interconnect prior to the completion of the System Modifications, provided, however, that any additional terms and conditions related to such authorization (which may include, without limitation, disconnection, curtailment, construction timeframes, and indemnification) shall be agreed to by the Interconnecting Customer and detailed in the ISA.

~~o)q)~~ The Interconnecting Customer has no right to operate in parallel until it has received the Authorization to Interconnect.

### 3.5 Time Frames

Unless otherwise noted, all days in the Interconnection Tariff reference Company business days under normal work conditions.

Table 1 lays out the maximum timeframes allowed under the Simplified, Expedited, and Standard Review processes. Note 1 to the Table contains additional information regarding the timeframes.

All Company timeframes herein are subject to all payments being made in accordance with this

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 33

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Interconnection Tariff and the Interconnecting Customer's Interconnection Service Agreement. The Company clock is stopped when awaiting information from Interconnecting Customers, except as set forth in Table 1, Note 7. Any delays caused by the Interconnecting Customer will interrupt the applicable clock.

The Company's timeframes herein will also be extended to the extent of events that are clearly not under the control of the Company, such as extended prohibitive weather, union work stoppage or by events of Force majeure, or delays caused by third parties, including without limitation delays due to ISO-NE requirements not attributable to Company actions.

Moreover, if an Interconnecting Customer fails to act expeditiously to continue the interconnection process or delays the process by failing to provide necessary information within the longer of 15 days or half the time allotted to the Company to perform a given step, or as extended by mutual agreement, then the Company may terminate the application and the Interconnecting Customer must re-apply. However, the Company will be required to retain the work previously performed in order to reduce the initial and Supplemental Review costs incurred for a period of no less than 1 year.

If the Interconnecting Customer does not initiate construction within twelve (12) months of signing the Interconnection Agreement, the Company may require the Customer to provide evidence that the project is moving toward construction. In the event that the Customer cannot provide such evidence (i.e., the project's permitting has been appealed or other reasons beyond the Interconnecting Customer's control), the Company reserves the right to require additional study or require the Customer to reapply for interconnection. Situations that could trigger enforcement of this time limit are: (1) material changes on the distribution circuits (e.g. load changes, circuit reconfiguration) or (2) a second application for interconnection received by the Company on a circuit from the same substation. The same rights of the Company to require the Customer to reapply for interconnection pertains if the interconnecting customer, after initiating construction, does not complete construction within twenty-four months. Notwithstanding these maximum time frames, the Company shall endeavor to meet the Customer's needs.

Interconnecting Customers shall not be required to pay any costs related to Company infrastructure upgrades or System Modifications upon execution of the Interconnection Service Agreement (or once the Interconnecting Customer receives the construction schedule). Interconnecting Customers shall have 90 Business Days from the date of execution of an Interconnection Service Agreement to pay the lesser of (a) an amount equal to the cost of designing the required System Modifications and the cost of any long lead time equipment or (b) 25% of the total estimated cost. The balance of the costs shall be paid within 90 Business Days of the initial payment, or as outlined in the ISA, whichever is longer. The Company's timeline obligation for construction shall commence upon the Interconnecting Customer's payment of 100% of costs under the Interconnection Services Agreement.

### 3.6 Fee Schedules

Table 2 lays out the fees required for Interconnecting Customers and Renewable Interconnecting Customers to apply for interconnection.

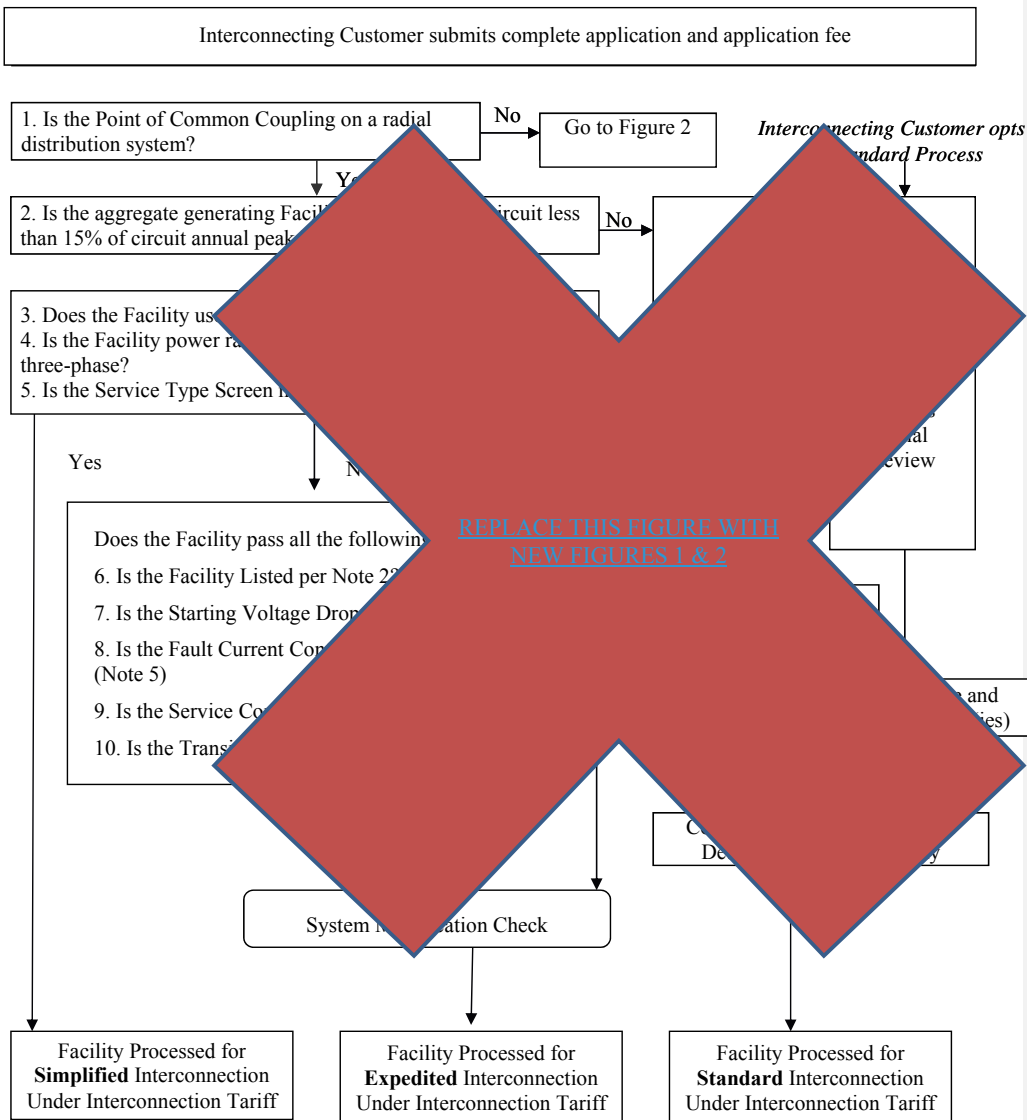
R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 34

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

R.I.P.U.C. No. [21802244](#)  
Canceling R.I.P.U.C. No. [21632180](#)  
Sheet 35

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

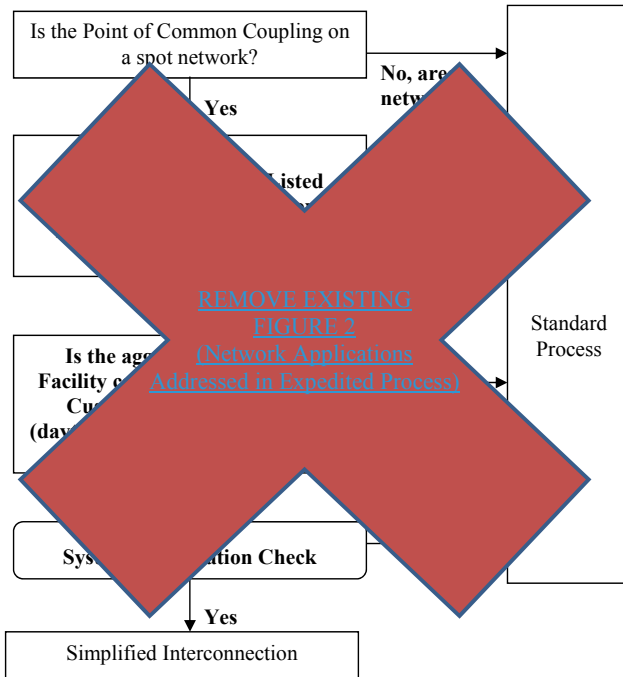
**Figure 1 – Schematic of Rhode Island DG Interconnection Process**



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 36

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Figure 2 – Simplified Interconnection to Networks**



Formatted: Heading 2



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 37

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Explanatory Notes to Accompany Figure 1**

**Note 1.** On a typical radial distribution EPS circuit ("feeder") the annual peak load is measured at the substation circuit breaker, which corresponds to the supply point of the circuit. A circuit may also be supplied from a tap on a higher voltage line, sometimes called a subtransmission line. On more complex radial EPSs, where bidirectional power flow is possible due to alternative circuit supply options ("loop service"), the normal supply point is the loop tap.

**Note 2.** A Listed Facility has successfully passed all pertinent tests to conform with IEEE Standard 1547. IEEE Standard 1547 includes design specifications, operational requirements, and a list of tests that are required for Facilities. IEEE Standard 1547.1 describes how to conduct tests to show compliance with provisions of IEEE Standard 1547. To meet Screen 3 or 4, Interconnecting Customers must provide information or documentation that demonstrates how the Facility is in compliance with the IEEE Standard 1547.1. A Facility will be deemed to be in compliance with the IEEE Standard 1547.1 if the Company previously determined it was in compliance. Applicants who can demonstrate Facility compliance with IEEE Standard 1547.1, with the testing done by a nationally recognized testing laboratory, will be eligible for the Expedited Process, and may be eligible for the Simplified process upon review by the utility.

Rhode Island has adopted UL1741 (Inverters, Converters and Charge Controllers for Use in Independent Power Systems) and UL2200 (Stationary Engine Generator Assemblies) as the standard for power systems to comply with IEEE Std. 1547 and 1547.1. Equipment listed to UL1741 or UL2200 by a nationally recognized testing laboratory will be considered in compliance with IEEE Std. 1547 and 1547.1. An Interconnecting Customer should contact the Facility supplier(s) to determine if it has been listed to either of these standards.

**Note 3.** This screen includes a review of the type of electrical service provided to the Interconnection Customer, including the service transformer configuration and service type to limit the potential for creating unacceptable voltage imbalance, over-voltage or under-voltage conditions, or service equipment overloads on the Company EPS due to a mismatch between the size and phasing of the energy source, the service loads fed from the service transformer(s), and the service equipment ratings.

**Note 4.** This Screen only applies to Facilities that start by motoring the generating unit(s) or the act of connecting synchronous generators. The voltage drops should be less than the criteria below. There are two options in determining whether Starting Voltage Drop could be a problem. The option to be used is at the Company's discretion:

**Option 1:** The Company may determine that the Facility's starting inrush current is equal to or less than the continuous ampere rating of the Facility's service equipment.

**Option 2:** The Company may determine the impedances of the service distribution transformer (if present) and the secondary conductors to the Facility's service equipment and perform a voltage drop calculation. Alternatively, the Company may use tables or nomographs to determine the voltage drop. Voltage drops caused by starting a generating unit as a motor must be less than 2.5% for primary interconnections and 5% for secondary interconnections.

R.I.P.U.C. No. ~~2480~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 38

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Note 5.** The purpose of this Screen is to ensure that fault (short circuit) current contributions from all Facilities will have no significant impact on the Company's protective devices and EPS. All of the following criteria must be met when applicable:

- a. The proposed Facility, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum fault current under normal operating conditions at the point on the high voltage (primary) level nearest the proposed PCC.
- b. The proposed Facility, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or Interconnecting Customer equipment on the EPS to exceed 85% of the short circuit interrupting capability. In addition, the proposed Facility will not be installed on a circuit that already exceeds 85% of the short circuit interrupting capability.
- c. When measured at the secondary side (low side) of a shared distribution transformer, the short circuit contribution of the proposed Facility must be less than or equal to 2.5% of the interrupting rating of the Company's service equipment.

Coordination of fault current protection devices and systems will be examined as part of this Screen.

**Note 6.** This Screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over voltages on the Company EPS due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass Screen
Three-phase, four wire	Effectively grounded 3 phase or single phase, line to neutral	Pass Screen

If the proposed generator is to be interconnected on a single phase transformer shared secondary, the aggregate generation capacity on the shared secondary, including the proposed generator, will not exceed 20 kilovolt-ampere ("kVA").

If the proposed generator is single phase and is to be interconnected on a center tap neutral of a 240-volt service, its addition will not create an imbalance between the two sides of the 240-volt service of more than 20% of nameplate rating of the service transformer.

**Note 7.** The proposed Facility, in aggregate with other Facilities interconnected to the distribution low-voltage side of the substation transformer feeding the distribution circuit where the Facility proposes to interconnect, will not exceed 10-MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., 3 or 4 transmission voltage

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 39

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

~~level buses from the PCC).~~

**Commented [IN18]:** Consensus proposed revisions to  
Simplified process

R.I.P.U.C. No. ~~21802244~~  
Canceling R.I.P.U.C. No. ~~21632180~~  
Sheet 40

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Table 1 - Time Frames (Note 1)

Review Process	Simplified	Expedited	Standard	
Eligible Facilities	Listed Small Inverter	Listed DG	Non-renewable DG	Renewable DG
Acknowledge receipt of Application	(3 days)	(3 days)	(3 days)	(3 days)
Review Application for completeness	10 days	10 days	10 days	10 days
Complete Review of all screens	10 days	25 days	n/a	n/a
Complete Supplemental Review (if needed)	<del>n/a</del> 30 days	20 days	n/a	n/a
Complete Standard Process Initial Review	n/a		20 days	20 days if Feasibility Study not requested
Send Follow-on Studies Cost/Agreement	n/a		5 days	5 days
Feasibility Study (if requested)			n/a	30 calendar days
<u>Pre-Impact Study Review</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>Mutually Agreed</u>
Complete Impact Study or ISR DG (if requested)	n/a		55 days	The shorter of 55 days or 90 calendar days
Complete Detailed Study (if requested)	n/a	n/a	30 days	30 days
Send Executable Agreement (Note 3)	Done	10 days	15 days	15 days
Total Maximum Days (completed Application to delivery of executable ISA)	<del>20/50</del> days (Note 4)	45/ 65 days (Note 45)	135/155 days (Note 56)	175 calendar/200 calendar if detailed study is required (Note 67)
Total Maximum Days (receipt of customer executed ISA to completion of System Modifications)	n/a, estimate will be provided with cost estimate and confirmed after payment is received	n/a, estimate will be provided in the ISA construction schedule	n/a estimate will be provided in the ISA construction schedule	Later of (i) 270/360 calendar days, if substation work is necessary, or (ii) mutual extension (Note 78)

Formatted: Font: 11 pt

Commented [IN19]: Deleted Simplified Spot Network column per consensus proposed revisions to Simplified process

Formatted Table

Commented [IN20]: Consensus proposed revisions to Simplified process

Commented [IN21]: Consensus proposed revisions to Simplified process

Formatted: Indent: Left: 0.25"

Commented [IN22]: Consensus proposed revisions to Simplified process

R.I.P.U.C. No. [21802244](#)  
Canceling R.I.P.U.C. No. [21632180](#)  
Sheet 41

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

[Table 1 - Time Frames \(Note 1\), page 2](#)

Review Process	Simplified	Expedited	Standard	
Notice/ Witness Test	< 1 day with 10 day notice or by mutual agreement	1-2 days with 10 day notice or by mutual agreement	By mutual agreement	By mutual agreement

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 42

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Table 2 - Fee Schedules**

	<b>Simplified</b>	<b>Expedited</b>	<b>Standard</b>	
	<b>Listed Small Inverter</b>	<b>Listed DG</b>	<b>Non-Renewable DG</b>	<b>Renewable DG requesting a Feasibility Study or ISR DG</b>
<b>Pre-Application Report Fee</b>	\$750	\$750	\$750	\$750
<b>Application Fee (covers Screens)</b>	\$0 (Note 1)	\$3/kW, minimum \$300, Maximum \$2,500	\$3/kW, minimum \$300, maximum \$2,500	<b>Feasibility Study Fee required in lieu of Application Fee</b>
<b>Supplemental Review or Additional Review (if applicable)</b>	N/A \$0 (Note 1)	Up to 10 hours at \$125/hr (Note 2)	N/A	N/A
<b>Standard Interconnection Initial Review</b>	N/A	N/A	Included in application fee (if applicable)	N/A
<b>Feasibility Study</b>	N/A	N/A	N/A	Residential: ≤25kW: \$0 >25kW: \$50  Non-residential: ≤100kW: \$100 ≤250kW: \$300 250kW–1MW: \$1,000 >1MW: \$2,500
<b>Impact Study or ISR DG</b>	N/A	N/A	Actual cost (Note 3)	Residential: ≤25kW: \$0 >25kW: \$100 Non-residential: ≤100kW: \$500 ≤250kW: \$1,000 250kW–1MW: \$5,000 >1MW: \$10,000 (Note 4)
<b>Detailed Study (if required)</b>	N/A	N/A	Actual cost (Note 3)	Actual cost (Note 3)
<b>System Modifications (Note 5)</b>	N/A (Note 5) Actual Cost	Actual cost	Actual cost	Actual cost
<b>O&amp;M (Note 6)</b>	N/A	TBD	TBD	TBD
<b>Witness Test</b>	0	Actual cost, up to \$300 + travel time	Actual Cost	Actual Cost

**Commented [IN23]:** Deleted Simplified Spot Network column per consensus proposed revisions to Simplified process

**Commented [IN24]:** \$750 flat fee is partial consensus proposed language of National Grid and DPUC

**Commented [IN25]:** Consensus proposed revisions to Simplified process

**Commented [IN26]:** Consensus proposed revisions to Simplified process

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 43

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Explanatory Notes to Accompany Tables 1 and 2**

**Table 1 – Time Frames**

**Note 1.** All days listed apply to Company business days under normal work conditions unless otherwise noted. Except with respect to Renewable DG Applications received on or after July 1, 2017, all numbers in this table assume a reasonable number of applicants under review. All timelines may be extended by mutual agreement or otherwise affected, suspended, extended or interrupted as specified in this Tariff. Any delays caused by Interconnecting Customer will interrupt the applicable clock, except as provided in Note 7 below. The timelines in Table 1 will be affected if ISO-NE determines that a [transmission level](#) system impact study is required. This will occur if the Interconnecting Customer's Facility is greater than 5 MW and may occur if the Interconnecting Customer's Facility is greater than 1 MW.

**Note 2.** 30 calendar days if load is known or can be reasonably determined, 90 calendar days if it has to be metered.

Formatted: Font: 12 pt

**Note 3.** Company delivers an executable agreement form.

Formatted: Font: 12 pt

**Note 4.** [Shorter time applies to Simplified Process without Supplemental Review; longer time applies to Simplified Process with Supplemental Review to determine the scope and cost estimate for minor System Modifications.](#)

Commented [IN27]: Consensus proposed revisions to Simplified process

**Note 45.** [Shorter time applies to Expedited Process without Supplemental Review; longer time applies to Expedited Process with Supplemental Review.](#)

Formatted: Font: 12 pt

**Note 56.** For Non-Renewable DG, 135-day maximum applies to an Interconnecting Customer opting to begin directly in Standard Process, and 155 days is for an Interconnecting Customer who goes through initial Expedited Process first. In both cases this assumes that both the Impact Study and Detailed Studies are needed. If the Detailed Study is not needed, the timelines will be shorter.

Formatted: Font: 12 pt

**Note 67.** For Renewable DG, the 175/200 calendar day maximum applies only to Applications received on or after July 1, 2017. The maximum number of days between the date of the completed Application and the Company's delivery of an executable ISA is 175 calendar days, or 200 calendar days if a Detailed Study is required.

**Note 78.** These deadlines apply only to Renewable DG Applications received on or after July 1, 2017. All Company System Modifications must be completed by the date which is the later of (1) no longer than 270 calendar days, or 360 calendar days if substation work is necessary, from the date of the Company's receipt of the Renewable Interconnecting Customer's executed ISA, or (2) the Renewable Interconnecting Customer's agreed upon extension of the time between the execution of the ISA and interconnection as set forth in writing. These deadlines are subject to all payments being made in accordance with the Interconnection Tariff and the ISA, and any delay by the Renewable Interconnecting Customer to make said payments will interrupt the applicable clock. Subject to Section 3.5, these System Modification deadlines cannot be extended due to customer delays in providing required information, all of which must be requested and obtained before completion of the Impact

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 44

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Study. The deadlines for completion of System Modifications will be extended to the extent of events that are clearly not under the control of the Company, such as extended prohibitive weather, union work stoppage, or events of Force Majeure, or third party delays, including, without limitation, delays due to ISO-NE



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 45

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

requirements not attributable to Company actions, and which cannot be resolved despite commercially reasonable efforts. The Company shall notify the customer of the start of any claimed System Modification deadline extension as soon as practicable, its cause and when it concludes, all in writing.

**Table 2 – Fee Schedules**

**Note 1.** If the Company determines that the Facility does not qualify for the Simplified Process, it will let the Interconnecting Customer know what the appropriate fee is. ~~If the Company determines that minor System Modifications are required for an application that remains in the Simplified Process, any incremental review or design costs will be included in the System Modification cost estimate, and the Interconnecting Customer will only be responsible for those costs if they chose to proceed with the System Modifications.~~

Formatted: Font: 12 pt

Commented [IN28]: Consensus proposed revisions to Simplified process

**Note 2.** Supplemental Review and additional review are defined in Section-~~3.33-2~~.

**Note 3.** This is the actual cost only attributable to the applicant. Any costs not expended from the application fee previously collected will go toward the costs of these studies.

Formatted: Font: 12 pt

**Note 4.** To the extent that an ISRDG fee established under this section does not cover the reasonable cost of an ISRDG for a given non-residential project that commences operation, the balance of such costs shall be recovered from such applicant through billings after the project is online. The Company may, at its sole election, offset net metering credits or any standard contract payments until the full fee(s) is reimbursed, if it finds it administratively convenient to use that means of billing for the balance of the fee for a given project.

**Note 5.** ~~Not applicable for Simplified except in certain rare cases where a System Modification would be needed. If so, the modifications are the Interconnecting Customer's responsibility.~~ The Company may only charge an Interconnecting Customer for any System Modifications to its electric power system specifically necessary for and directly related to the interconnection.

Formatted: Font: 12 pt

Commented [IN29]: Consensus proposed revisions to Simplified process

**Note 6.** O & M is defined as the Company's operations and maintenance carrying charges on the incremental costs associated with serving the Interconnecting Customer.

Formatted: Font: 12 pt

**Note 7.** The fee will be based on actual cost up to \$300 plus driving time, unless Company representatives are required to do additional work due to extraordinary circumstances or due to problems on the Interconnecting Customer's side of the PCC (e.g., Company representative required to make two trips to the site), in which case Interconnecting Customer will cover the additional cost.

Formatted: Font: 12 pt

~~**Note 8.** Unless extraordinary circumstances.~~

Commented [IN30]: Consensus proposed revisions to Simplified process

Formatted: Font: 12 pt

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 46

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

#### **4.0 Interconnection Requirements**

##### **4.1 General Design Considerations**

Interconnecting Customer shall design and construct the Facility in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Company's Interconnection Tariff. Interconnecting Customer agrees to cause its Facility to be constructed in accordance with applicable specifications that meet or exceed those provided under this Section of the Interconnection Tariff. Where an industry standard is referenced, it shall be the latest issued version.

##### **4.0.1 Transient Voltage Conditions**

Because of unusual events in the Company's EPS, there will be transient voltage fluctuations, which will result in voltages exceeding the limits of the stated ranges. These transient voltage fluctuations, which generally last only a few milliseconds, arise due to EPS disturbances including, but not limited to, lightning strikes, clearing of faults, and other switching operations. The magnitude of transient voltage fluctuations varies with EPS configuration, grounding methods utilized, local short circuit availability, and other parameters, which vary from point-to-point and from time-to-time on the distribution EPS.

The fluctuations may result in voltages exceeding the limits of the stated ranges and occur because of EPS disturbance, clearing of faults and other switching operations. These unavoidable transients are generally of too short duration and insufficient magnitude to have any adverse effects on general service applications. They may, however, cause malfunctions in equipment highly sensitive to voltage changes, and protective devices may operate to shut down such devices. The magnitude, duration and frequency of transient fluctuations will vary due to EPS configuration and/or circuit arrangement. In addition, disturbances of indeterminate magnitude and duration may occur on infrequent occasions due to short circuits, faults, and other unpredictable conditions.

Transient voltages should be evaluated in the design of the Facility.

##### **4.0.2 Noise and Harmonics**

The introduction of abnormal noise/harmonics can cause abnormal neutral current flow, and excessive heating of electrical equipment. Harmonics may also cause distortion in TV pictures, telephone interference, and malfunctions in digital equipment such as computers. The permissible level of harmonics is dependent upon the voltage level and short circuit ratio at a given location. IEEE Standard 1547 provides these levels at the PCC. In requiring adherence to IEEE Standard 1547 the Company is in no way making a recommendation regarding the level of harmonics that a given piece of equipment can tolerate nor is it making a recommendation as to the permissible level in the Interconnecting Customer's Facility.

##### **4.0.3 Frequency**

The interconnected electric power system in North America, which is maintained at 60 hertz ("Hz")

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 47

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

frequency on its alternating current services, is subject to certain deviations. The usual maximum instantaneous deviation from the standard 60 Hz is  $\pm 2/10$  cycle ( $\pm 0.33\%$ ), except on infrequent occasions when the deviation may reach  $\pm 1/10$  cycle ( $\pm 0.17\%$ ). The usual normal deviation is approximately  $\pm 1/20$  cycle ( $\pm 0.083\%$ ). These conditions are subject to occur at any time of the day or night and should be considered in the design of the Facility. All are measured on a 60 Hz base.

#### 4.0.4 Voltage Level

All electricity flow across the PCC shall be in the form of single-phase or three-phase 60 Hz alternating current at a voltage class determined by mutual agreement of the Parties.

#### 4.0.5 Machine Reactive Capability

Facilities less than 1 megawatt ("MW") will not be required to provide reactive capability, except as may be provided by the retail rate schedule and Terms and Conditions for Distribution Services under which the Customer takes service.

Facilities greater than or equal to 1 MW interconnected with the Company EPS shall be required to provide reactive capability to regulate and maintain EPS voltage at the PCC as per NEPOOL requirements. The Company and NEPOOL shall establish a scheduled range of voltages to be maintained by the Facility. The reactive capability requirements shall be reviewed as part of the Impact Study and Detailed Study.

### 4.2 Protection Requirements for New or Modified Facility Interconnections with the EPS

#### 4.2.1 General Requirements

Any Facility desiring to interconnect with the Company EPS or modify an existing interconnection must meet minimum specifications, where applicable, as set forth in the following documents and standards as may be amended from time to time and requirements in this Section.

- IEEE Standard 1547, "IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems."
- UL Standard 1741, "Inverters, Converters and Charge Controllers for Use in Independent Power Systems."

In the event that the IEEE or UL Standards referenced above conflict with the Company's ESB 756, the Company's ESB 756 where applicable to Rhode Island shall be followed.

The specifications and requirements listed herein are intended to mitigate possible adverse impacts caused by the Facility on the Company's equipment and personnel and on other Interconnecting Customers of the Company. They are not intended to address protection of the Facility itself or its internal load. It is the responsibility of the Facility to comply with the requirements of all appropriate standards, codes, statutes and authorities to protect itself and its loads.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 48

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

The Company shall not be responsible for the protection of the Facility. The Facility shall be responsible for protection of its system against possible damage resulting from parallel operation with the Company so long as the Company adheres to Good Utility Practice. If requested by the Interconnecting Customer, the Company will provide system protection information for the line terminal(s) directly related to the interconnection. This protection information contained herein is provided exclusively for use by the Interconnecting Customer to evaluate protection of its Facility during parallel operation.

At its sole discretion, the Company may consider approving alternatives that satisfy the intent of the requirements contained in this Section.

#### 4.2.2 Facility Classification

To determine the protection requirements for a given Facility, the following Groups have been established:

Group	Type of Interconnection
1	Facilities Qualified for Simplified Interconnection
2	All Facilities Not Qualified for Simplified Interconnection

#### 4.2.3 Protection Requirements

All Facilities must meet performance requirements set forth in relevant sections of IEEE Standard 1547, in particular, the attachments specific to Under Voltage Ride Through, Under Frequency Ride Through and VAr control. Additionally, all Facilities must meet the Company's ESB-756.

#### 4.2.4 Group 1 Facilities

- The inverter-based Facility shall be considered *Listed* if it meets requirements set forth in Section 3.1 "Simplified Process".
- External Disconnect Switch:** For Listed inverters, the Company may require an external disconnect switch (or comparable device by mutual agreement of the Parties) at the PCC with the Company or at another mutually agreeable point that is accessible to Company personnel at all times and that can be opened for isolation if the switch is required. The switch shall be gang operated, have a visible break when open, be rated to interrupt the maximum generator output and be capable of being locked open, tagged and grounded on the Company side by Company personnel. The visible break requirement can be met by opening the enclosure to observe the contact separation. The Company shall have the right to open this disconnect switch in accordance with this Interconnection Tariff.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 38

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

4.2.3.1 Group 2 Facilities

4.2.3.2 General Requirements

- a. **Non-Export Power:** If the Parties mutually agree that non-export functionality will be part of the interconnection protection equipment then it will include one of the following: (1) a reverse power relay with mutually agreed upon delay intervals, or (2) a minimum power function with mutually agreed upon delay intervals, or (3) other mutually agreeable approaches, for example, a comparison of nameplate rating versus certified minimum Customer premises load.
- b. The ISO-NE is responsible for assuring compliance with NPCC criteria. For the interconnection of some larger units, the NPCC criteria may additionally require:

**NPCC Protective Relaying Requirements:** The Company may require the Facility to be equipped with two independent, redundant relaying systems in accordance with NPCC criteria, where applicable, for the protection of the bulk power system if the interconnection is to the bulk power system or if it is determined that delayed clearing of faults within the Facility adversely affects the bulk power system.

**NPCC Requirements:** During system conditions where local area load exceeds system generation, NPCC Emergency Operation Criteria requires a program of phased automatic under frequency load shedding of up to 25% of area load to assist in arresting frequency decay and to minimize the possibility of system collapse.

Depending on the point of connection of the Facility to the Company's EPS and in conformance with the NPCC Emergency Operating Criteria, the Facility may be required to remain connected to the EPS during the frequency decline to allow the objectives of the automatic load shedding program to be achieved, or to otherwise provide compensatory load reduction, equivalent to the Facility's generation lost to the system, if the Interconnecting Customer elects to disconnect the Facility at a higher under-frequency set point.

- c. **Disconnect Switch:** The Facility shall provide a disconnect switch (or comparable device mutually agreed upon by the Parties) at the point of Facility interconnection that can be opened for isolation. The switch shall be in a location easily accessible to Company personnel at all times. The switch shall be gang operated, have a visible break when open, be rated to interrupt the maximum generator output and be capable of being locked open, tagged and grounded on the Company side by Company personnel. The visible break requirement can be met by opening the enclosure to observe the contact separation. The Company shall exercise such right in accordance with Section 7.0 of this Interconnection Tariff.
- d. **Transfer Tripping:** A direct transfer tripping system, if one is required by either the Interconnecting Customer or by the Company, shall use equipment generally accepted for use by the Company and shall, at the option of the Company, use dual channels.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 39

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**4.2.3.2.2 Requirements for Induction and Synchronous Generator Facilities**

- a. **Interconnection Interrupting Device:** An interconnection Interrupting Device such as a circuit breaker shall be installed to isolate the Facility from the Company's EPS. If there is more than one Interrupting Device, this requirement applies to each one individually. The Interconnection Interrupting Device must be capable of interrupting the current produced when the Facility is connected out of phase with the Company's EPS, consistent with Section 4.1.8.3 of IEEE Standard 1547 which states, "the interconnection system paralleling-device shall be capable of withstanding 220% of the interconnection system rated voltage."
- b. **Synchronizing Devices:** The Interconnecting Customer shall designate one or more Synchronizing Devices such as motorized breakers, contactor/breaker combinations, or a fused contactor (if mutually agreeable) to be used to connect the Facility's generator to the Company's EPS. This Synchronizing Device could be a device other than the interconnection Interrupting Device. The Synchronizing Device must be capable of interrupting the current produced when the Facility is connected out of phase with the Company's EPS, consistent with Section 4.1.8.3 of IEEE Standard 1547 which states, "the interconnection system paralleling-device shall be capable of withstanding 220% of the interconnection system rated voltage."
- c. **Transformers:** The Company reserves the right to specify the winding connections for the transformer between the Company's voltage and the Facility's voltage ("Step- Up Transformer") as well as whether it is to be grounded or ungrounded at the Company's voltage. In the event that the transformer winding connection is grounded-wye/grounded-wye the Company reserves the right to specify whether the generator stator is to be grounded or not grounded. The Interconnecting Customer shall be responsible for procuring equipment with a level of insulation and fault- withstand capability compatible with the specified grounding method.
- d. **Voltage relays:** Voltage relays shall be frequency compensated to provide a uniform response in the range of 40 to 70 Hz.
- e. **Protective Relaying Redundancy:** For induction generators greater than 1/15 of on-site minimum verifiable load that is not equipped with on-site capacitors or that is greater than 200 kW, and for all synchronous generators, protective relays utilized by the Facility shall be sufficiently redundant and functionally separate so as to provide adequate protection, consistent with Company practices and standards, upon the failure of any one component.
- f. **Protective Relay Hard-Wire Requirement:** Unless authorized otherwise by the Company, protective relays must be hardwired to the device they are tripping. Further, interposing computer or programmable logic controller or the like is not permitted in the trip chain between the relay and the device being tripped.
- g. **Protective Relay Supply:** Where protective relays are required in this Section, their

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 40

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

control circuits shall be DC powered from a battery/charger system or a UPS. Solid-state relays shall be self-powered, or DC powered from a battery/charger system or a UPS. If the Facility uses a Company-acceptable non-latching interconnection contactor, AC powered relaying shall be allowed provided the relay and its method of application are fail safe, meaning that if the relay fails or if the voltage and/or frequency of its AC power source deviate from the relay's design requirements for power, the relay or a separate fail-safe power monitoring relay acceptable to the Company will immediately trip the generator by opening the coil circuit of the interconnection contactor.

- h. **Current Transformers ("CT"):** CT ratios and accuracy classes shall be chosen such that secondary current is less than 100 amperes and transformation errors are consistent with Company practices. CTs used for revenue class metering must have a secondary current of 20 amperes or less.
- i. **Voltage Transformers ("VT") s and Connections:** The Facility shall be equipped with a direct voltage connection or a VT, connected to the Company side of the Interrupting Device. The voltage from this VT shall be used in an interlock scheme, if required by the Company. For three-phase applications, a VT for each phase is required. All three phases must be sensed either by three individual relays or by one relay that contains three elements. If the voltage on any of the three phases is outside the bounds specified by the Company, the unit shall be tripped. If the Facility's Step- Up Transformer is ungrounded at the Company voltage, this VT shall be a single three-phase device or three single-phase devices connected from each phase to ground on the Company's side of the Facility's Step-Up Transformer, rated for phase- to-phase voltage and provided with two secondary windings. One winding shall be connected in open delta, have a loading resistor to prevent ferroresonance, and be used for the relay specified in these requirements.

#### 4.2.3.2.3 Additional Requirements for Induction Generator Facilities

- a. **Self-Excitation:** A Facility using induction generators connected in the vicinity of capacitance sufficient to self-excite the generator(s) shall meet the requirements for synchronous machines. The capacitors that enable self-excitation may actually be external to the Facility. The Company will not restrict its existing or future application of capacitors on its lines nor restrict their use by other Interconnecting Customers of the Company to accommodate a Facility with induction machines. If self-excitation becomes possible due to the installation of or presence of capacitance, the protection requirements of the Facility may need to be reviewed and revised, if applicable.

The Facility may be required to install capacitors to limit the adverse effects of drawing reactive power from the EPS for excitation of the generator. Capacitors for supply of reactive power at or near the induction generator with a kilovolts-ampere reactive ("kVAR") rating greater than 30% of the generator's kW rating may cause the generator to become self-excited. (If self-excitation can occur, the Facility shall be required to provide protection as specified in synchronous machines requirements.)

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 41

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**4.2.3.2.4 Additional Requirements for Synchronous Generator Facilities**

- a. **Ungrounded Transformers:** If the Facility's Step-Up Transformer connection is ungrounded, the Facility shall be equipped with a zero sequence over-voltage relay fed from the open delta of the three-phase VT specified in the Voltage Transformers and Connections Section 4.2.3.2.2.i.
- b. **High-Speed Protection:** The Facility may be required to use high-speed protection if time-delayed protection would result in degradation in the existing sensitivity or speed of the protection systems on the Company's EPS.
- c. **Breaker Failure Protection:** The Facility may be required to be equipped to provide local breaker failure protection which may include direct transfer tripping to the Company's line terminal(s) in order to detect and clear faults within the Facility that cannot be detected by the Company's back-up protection.
- d. **Communications Channels:** The Interconnecting Customer is responsible for procuring any communications channels necessary between the Facility and the Company's stations, and for providing protection from transients and over-voltages at all ends of these communication channels. The Interconnecting Customer will also bear the ongoing cost to lease these communication channels. Examples include, but are not limited to, connection to a line using high-speed protection, transfer tripping, generators located in areas with low-fault currents, or back up for generator breaker failure.

**4.2.4 Protection System Testing and Maintenance**

The Company shall have the right to witness the commissioning testing as defined in IEEE Standard 1547-2003 at the completion of construction and to receive a copy of all test data. The Facility shall be equipped with whatever equipment is required to perform this test.

Testing typically includes, but is not limited to:

- CT and VT circuit polarity, ratio, insulation, excitation, continuity and burden tests,
- Relay pick-up and time delay tests,
- Functional breaker trip tests from protective relays,
- Relay in-service test to check for proper phase rotation and magnitudes of applied currents and voltages,
- Breaker closing interlock tests, and
- Paralleling and disconnection operation.

Prior to final approval by the Company or anytime thereafter, the Company reserves the right to test the generator relaying and control related to the protection of the Company's EPS.

The Interconnecting Customer has the full responsibility for the proper periodic maintenance of its generating equipment and its associated control, protective equipment and interrupting devices. The Interconnecting Customer is responsible for the periodic maintenance of those relays, interrupting



R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 42

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

devices, control schemes, and batteries that involve the protection of the Company's EPS. A periodic maintenance program, mutually agreeable to both the Company and to the Interconnecting Customer is to be established in each case. The Company shall have the right to monitor the periodic maintenance performed.

For relays installed in accordance with the NPCC Criteria for the Protection of the Bulk Power System, maintenance intervals shall be in accordance with such criteria. The results of these tests shall be summarized by the Interconnecting Customer and reported in writing to the Company.

The Company reserves the right to install special test equipment as may be required to monitor the operation of the Facility and its control or for evaluating the quality of power produced by the Facility at a mutually agreed upon location. The cost of this testing will be borne by the Company unless there is shown to be a problem associated with the Facility or if the test was performed at the request of the Interconnecting Customer.

Each routine check shall include both a calibration check and an actual trip of the circuit breaker or contactor from the device being tested. Visually setting a calibration dial, index or tap is not considered an adequate calibration check.

Inverters with field adjustable settings for their internal protective elements shall be periodically tested if those internal elements are being used by the Facility to satisfy the requirements of this Section.

#### **4.2.5 Protection Requirements – Momentary Paralleling of Standby Generators**

Protective relays to isolate the Facility for faults in the Company EPS are not required if the paralleling operation is automatic and takes place for less than one-half of a second. An Interrupting Device with a half-second timer (30 cycles) is required as a fail-safe mechanism.

Parallel operation of the Facility with the Company EPS shall be prevented when the Company's line is dead or out of phase with the Facility.

The control scheme for automatic paralleling must be submitted by the Interconnecting Customer for review and acceptance by the Company prior to the Facility being allowed to interconnect with the Company EPS.

#### **4.2.6 Protection System Changes**

The Interconnecting Customer must provide the Company with reasonable advance notice of any proposed changes to be made to the protective relay system, relay settings, operating procedures or equipment that affect the interconnection. The Company will determine if such proposed changes require additional review and/or approval of the interconnection per the requirements of this Section.

In the future, should the Company implement changes to the EPS to which the Facility is interconnected, the Interconnecting Customer will be responsible at its own expense for identifying and incorporating any necessary changes to its protection equipment. These changes to the Facility's protection equipment are subject to review and approval by the Company.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 43

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

### **4.3 Limited-Export and Non-Exporting Facilities**

#### **4.3.1. General Requirements**

The Export Capacity of a Facility shall be considered limited if the Facility complies with the requirements of Section 4.3, subsections 4.3.2 through 4.3.4 to limit the export of electrical power across the Point of Common Coupling, using a means that is acceptable to the Company's technical standards. If the Facility utilizes a design that meets the requirements of Section 4.3, that will determine the Export Capacity of a Facility for use in the Simplified, Expedited, Standard and Complex Processes.

To prevent impacts on system safety and reliability, the Interconnecting Customer shall provide proposed Facility capabilities including sequence of operation, Facility equipment response times, potential maximum export, and other criteria as defined in the Company's technical standards, to the Company as part of the Interconnection Application to describe the proposed Facility operation and any potential Inadvertent Export. The Export Capacity specified by the Interconnecting Customer in the Interconnection Application, including the proposed operating schedule, will be included as an operational limitation in the Interconnection Service Agreement.

Export Capacity will be factored into specific screens and application eligibility criteria elsewhere within the tariff, and shall be considered by the Company, as appropriate, when performing reviews and/or engineering analyses. Complying with any of the requirements of subsections 4.3.2. through 4.3.4 does not supersede the need for additional protective relays for other Protective Functions as defined by the Company and addressed elsewhere in this tariff.

#### **4.3.2. Power Limiting via Protective Functions**

Directional power flow at the Point of Common Coupling may be monitored in order for the Facility to take action upon sensing reverse power flow onto the Area EPS or sensing of power import to the Facility below a specific setpoint. The following Protective Functions are acceptable:

- A reverse power Protective Function to ensure zero power production from the Facility across the Point of Common Coupling.
- A Protective Function to ensure a pre-defined power import or Limited Export to/ from the Facility, across the Point of Common Coupling.

Dynamic adjustment of the Protective Function in response to a utility control signal will be permissible upon mutual agreement between the Company and Interconnecting Customer. In all instances where a Protective Function is employed to limit the power export, the device must be certified for its intended use by a NRTL.

The device(s) that contain(s) the Protective Function may utilize adjustable or fixed trip point and/or time delay settings:

- For adjustable setting devices, the Interconnecting Customer shall provide to the Company their proposed settings (limit value, trip or cease to energize setting and/or time delay) and describe the manner in which the settings are protected from inadvertent or malicious

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 44

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

adjustment on their one-line diagram in their Interconnection Application.

- For fixed setting devices, the Interconnecting Customer shall provide the fixed setpoints (limit value, trip or cease to energize setting and/or time delay) on their one-line diagram in their Interconnection Application.
- For all devices, the Interconnecting Customer must provide proof of NRTL certification and equipment accuracy data within the Interconnection Application documentation, as required in the Company's technical standards.

Protective Function device settings may vary depending on the specifics of the proposed Facility design, proposed equipment, and the electrical characteristics of the interconnecting feeder. The Company will provide permissible setting range(s) and similar technical guidance in the Company's technical standards.

Subject to the Company's technical standards, Protective Functions and associated equipment include, but are not limited to:

- 1) A utility-grade (IEEE C37.90 compliant) protective relay with an ANSI 32element (directional power) configured to maintain one of the following:
  - a. Maximum export value across the PCC
  - b. Zero export across PCC
  - c. Minimum import to facility from the PCC
- 2) A certified Power Control System set to maintain power output in accordance with one of the following:
  - a. Maximum export value across the PCC
  - b. Zero export across PCC
  - c. Minimum import to facility from the PCC

The Export Capacity value for systems that qualify under this section is exclusive of Inadvertent Export. The aggregate Inadvertent Export of all Facilities on the circuit may need to be further evaluated.

#### **4.3.3. Reduced Rating Capacity**

A reduced capacity rating below that of the Nameplate Rating may be included in the Facility design in order to lower the Export Capacity of the Facility. The reduced capacity rating must be applied to customer equipment that directly allows for power flow from the Facility and whose rating reduction will make the Facility physically incapable of producing power above a specific value. Most typically, this reduced rating capacity is expected to be applied to the Facility inverters.

The reduced Nameplate Rating shall be implemented by the manufacturer or its representatives and shall not be field adjustable by anyone other than the manufacturer or its representatives. The reduced Nameplate Rating shall be indicated by means of a Nameplate Rating replacement, or by a supplemental adhesive Nameplate Rating tag to indicate the reduced Nameplate Rating. At the discretion of the Company the Interconnecting Customer may additionally be required to provide a letter from the manufacturer confirming the reduced capacity.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 45

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

#### 4.3.4. Limited Export Using Mutually Agreed-Upon Means

Facilities may be designed with other control systems and/or Protective Functions to limit export and/or Inadvertent Export to levels mutually agreed upon by the Interconnecting Customer and Company. The proposed design scheme must be approved by the Company in accordance with Company technical requirements.

**Commented [IN31]:** Consensus proposed new Section 4.3 concerning Export Capacity

### **5.0 Responsibility for Costs of Interconnecting a Facility**

#### **5.1 Review and Study Costs**

The Interconnecting Customer shall be responsible for the reasonably incurred costs of the review by the Company and any interconnection studies conducted as defined by Table 2 ("Fee Schedules") of Section 3.0 of this Interconnection Tariff solely to determine the requirements of interconnecting a Facility with the Company EPS.

#### **5.2 Interconnection Equipment Costs**

The Interconnecting Customer shall be responsible for all costs associated with the installation and construction of the Facility and associated interconnection equipment on the Interconnecting Customer's side of the PCC, less any System Improvements.

#### **5.3 System Modification Costs**

The Interconnecting Customer shall only pay for that portion of the interconnection costs resulting solely from the System Modifications required to allow for safe, reliable parallel operation of the Facility with the Company EPS; provided, however, the Company may only charge an Interconnecting Customer for System Modifications specifically necessary for and directly related to the interconnection. The Interconnecting Customer shall also be responsible for all costs reasonably incurred by the Company attributable to the proposed interconnection project in designing, constructing, operating and maintaining the System Modifications required to allow for safe, reliable parallel operation of the Facility with the Company EPS, or resulting from the Facility operating in conjunction with any existing Facilities or other proposed Facilities that precede the Facility in the interconnection queue.

At the time that the Company provides an Interconnecting Customer with any Impact Study or Detailed Study, the Company shall also provide, along with that Study, a statement of the Company's policies on collection of tax gross-ups. As appropriate, to the extent that subsequent Interconnecting Customers benefit from System Modifications that were paid for by an earlier Interconnecting Customer, the Company may assess a portion of the costs to such subsequent Interconnecting Customers, which will be refunded to the earlier Interconnecting Customer if actually collected. Such assessments may occur for a period of up to five years from the Effective Date of the earlier Interconnecting Customer's Interconnection Service Agreement.

Effective for Renewable Interconnecting Customer Applications filed on or after July 1, 2017, if a

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~24632180~~  
Sheet 46

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Renewable Interconnecting Customer is required to pay for system modifications and a subsequent renewable energy or commercial customer relies on those modifications to connect to the distribution system within ten (10) years of the earlier Renewable Interconnecting Customer's payment, the

Company will require that the subsequent customer make a prorated contribution toward the cost of the system modifications and will credit such amount to the earlier Renewable Interconnecting Customer as determined by the Commission.

#### 5.4 Separation of Costs

- a. The Company may combine the installation of System Modifications with System Improvements to the Company's EPS to serve the Interconnecting Customer or other customers, but shall not include the costs of such System Improvements in the amounts billed to the Interconnecting Customer for the System Modifications required pursuant to this Interconnection Tariff. Interconnecting Customers shall be directly responsible to any Affected System operator for the costs of any system modifications necessary to the Affected Systems.
- b. ~~b.~~ Effective for Renewable Interconnecting Customer Applications filed on or after July 1, 2017, in the event that the Commission determines that a specific ~~sSystem~~ ~~Modification~~ of the electric distribution system ~~benefits~~ ~~ing~~ other customers ~~and~~ has been accelerated due to an interconnection request and orders the Renewable Interconnecting Customer to fund the modification, the Renewable Interconnecting Customer will be entitled to repayment of the depreciated value of the modification as of the time the modification would have been necessary as determined by the Commission.
- ~~c.~~ ~~c.~~ The Company will consider a system modification to be an accelerated modification if such modification is otherwise identified in the Company's work plan as a necessary capital investment to be installed within a five-year period as of the date the Company begins the impact study of the proposed distributed generation (DG) project (defined as an Accelerated Modification). The Company will identify the Accelerated Modification and the cost thereof in the impact study. The Renewable Interconnecting Customer will be responsible for the identified Accelerated Modification costs less the depreciated value (Modified Costs), which Modified Costs will be estimated in the interconnection service agreement (ISA). Upon reconciliation, final labor, material and depreciation values will be provided based on the actual date of asset installation in the same price categories as originally proposed in the ISA to the customer so that a comparison can be made. The Company will file with the Commission all executed ISAs for Renewable Interconnecting Customer DG projects with an identified Accelerated Modification by July 1 of each year.

~~If System Modifications are required to interconnect a proposed Facility and the Company determines that those System Modifications (in full or in part) may provide an obvious future benefit to the Company EPS that would be considered used and useful by the Company's customer base, the Interconnecting Customer shall be only be responsible for the incremental cost of such System Modifications that would not otherwise be considered used and useful.~~

- ~~d.~~ Renewable Interconnecting Customers may also petition the Commission directly if the

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 47The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Renewable Interconnecting Customer believes it has been incorrectly charged for an Accelerated Modification under Section 5.4. In these cases, the Renewable Interconnecting Customer shall be responsible to pay for the cost of the system modification pursuant to the ISA, unless and until a determination has been made by the Commission. In all cases, the Company will be entitled to recover the costs of any unpaid portion of an Accelerated Modification(s) in rates.

**5.5 Normal Payment Procedure**

All application, study fees, and System Modification costs (except as noted below) are due in full prior to the execution of the work as outlined in this Interconnection Tariff. If the anticipated costs exceed \$25,000, the Interconnecting Customer is eligible for a payment plan, including a payment and construction schedule with milestones for both parties. At the request of the Interconnecting Customer, the Company will break the costs into phases in which the costs will be collected prior to Company expenditures for each phase of the study and/or construction including ordering equipment. The payment plan will be attached as an exhibit to the ISA or relevant study agreements. The Company will not be required to initiate any work for which advanced payment has not been received.

The Company within ninety (90) business days after completion of the construction and installation of the System Modifications described in an attached exhibit to the ISA, or completion of the relevant study if the Interconnecting Customer does not execute an ISA, and all Company work orders have been closed, shall provide the Interconnecting Customer with a final accounting report of any difference between the (a) Interconnecting Customer's cost responsibility under the ISA or relevant study agreement, as the case may be, for the actual cost of such System Modifications and for any Impact or Detailed Study performed by the Company, and (b) Interconnecting Customer's previous aggregate payments to the Company for such System Modifications and studies. Costs that are statutorily-based shall not be subject to either a final accounting or reconciliation under this provision (e.g. statutorily set study fees for the ISRDG), but may be reconciled at any time only if the costs exceed the statutory fee, and the Company seeks to collect actual costs in accordance with the applicable statute, including supporting documentation in the same price categories as originally proposed in the ISA to the customer so that a comparison can be made. To the extent that Interconnecting Customer's cost responsibility in the ISA for the System Modifications and in the Impact and/or Detailed Study Agreements (as applicable) for the studies performed by the Company exceeds the Interconnecting Customer's previous aggregate payments, the Company shall invoice the Interconnecting Customer and the Interconnecting Customer shall make payment to the Company within 45 days. To the extent that the Interconnecting Customer's previous aggregate payments exceed the Interconnecting Customer's cost responsibility under the applicable agreement, the Company shall refund to the Interconnecting Customer an amount equal to the difference within forty-five (45) days of the provision of such final accounting report.

**5.6 Security and Creditworthiness**

In order for the Company to agree to any payment plan where some work may be performed in advance of payment, the Company may require the Interconnecting Customer to provide evidence of creditworthiness. In the event that Interconnecting Customer cannot provide such evidence to the

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 48

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

satisfaction of the Company, then the Company may require the Interconnecting Customer to provide sufficient security in order to take advantage of a payment plan. Interconnecting Customer acknowledges that it will be responsible for the actual costs of the System Modifications described in the attached exhibit to the Interconnection Service Agreement, whether greater or lesser than the amount of the payment security provided under this section.

## **6.0 Operating Requirements**

### **6.1 General Operating Requirements**

Interconnecting Customer shall operate and maintain the Facility in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Company's Interconnection Tariff. The Interconnecting Customer will continue to comply with all applicable laws and requirements after interconnection has occurred. In the event the Company has reason to believe that the Interconnecting Customer's installation may be the source of problems on the Company EPS, the Company has the right to install monitoring equipment at a mutually agreed upon location to determine the source of the problems. If the Facility is determined to be the source of the problems, the Company may require disconnection as outlined in Section 7.0 of this Interconnection Tariff. The cost of this testing will be borne by the Company unless the Company demonstrates that the problem or problems are caused by the Facility or if the test was performed at the request of the Interconnecting Customer.

### **6.2 No Adverse Effects; Non-interference**

Company shall notify Interconnecting Customer if there is evidence that the operation of the Facility could cause disruption or deterioration of service to other Customers served from the same Company EPS or if operation of the Facility could cause damage to Company EPS or Affected Systems. The deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE Standard 1547-2003, as well as voltage fluctuations caused by large step changes in loading at the Facility. Each Party will notify the other of any emergency or hazardous condition or occurrence with its equipment or facilities which could affect safe operation of the other Party's equipment or facilities. Each Party shall use reasonable efforts to provide the other Party with advance notice of such conditions.

The Company will operate the EPS in such a manner so as to not unreasonably interfere with the operation of the Facility. The Interconnecting Customer will protect itself from normal disturbances propagating through the Company EPS, and such normal disturbances shall not constitute unreasonable interference unless the Company has deviated from Good Utility Practice. Examples of such disturbances could be, but are not limited to, single-phasing events, voltage sags from remote faults on the Company EPS, and outages on the Company EPS. If the Interconnecting Customer demonstrates that the Company EPS is adversely affecting the operation of the Facility and if the adverse effect is a result of a Company deviation from Good Utility Practice, the Company shall take appropriate action to eliminate the adverse effect.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 49

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

### 6.3 Safe Operations and Maintenance

Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facility or facilities that it now or hereafter may own unless otherwise specified in this Interconnection Tariff. Each Party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on their respective side of the PCC. The Company and the Interconnecting Customer shall each provide equipment on its respective side of the PCC that adequately protects the Company's

EPS, personnel, and other persons from damage and injury. The Interconnecting Customer is responsible to comply with switching protocol established with the Company for connection to the EPS.

### 6.4 Access

The Company shall have access to the disconnect switch of the Facility at all times.

#### 6.4.1 Company and Interconnecting Customer Representatives

Each Party shall provide and update as necessary the telephone number that can be used at all times to allow either Party to report an emergency.

#### 6.4.2 Company Right to Access Company-Owned Facilities and Equipment

If necessary for the purposes of this Interconnection Tariff and in the manner it describes, the Interconnecting Customer shall allow the Company access to the Company's equipment and the Company's facilities located on the Interconnecting Customer's or Customer's premises. To the extent that the Interconnecting Customer does not own all or any part of the property on which the Company is required to locate its equipment or facilities to serve the Interconnecting Customer under this Interconnection Tariff, the Interconnecting Customer shall secure and provide in favor of the Company the necessary rights to obtain access to such equipment or facilities, including easements if the circumstances so require.

#### 6.4.3 Right to Review Information

The Company shall have the right to review and obtain copies of Interconnecting Customer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Interconnecting Customer's Facility or its interconnection with the Company EPS. This information will be treated as customer-confidential and only used for the purposes of meeting the requirements of Section 4.2.4.

### 7.0 Disconnection

#### 7.1 Temporary Disconnection

- a. **Emergency Conditions.** Company shall have the right to immediately and temporarily



R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 50The Narragansett Electric Company  
Standards for Connecting Distributed Generation

disconnect the Facility without prior notification in cases where, in the reasonable judgment of Company, continuance of such service to Interconnecting Customer is imminently likely to (i) endanger persons or damage property or (ii) cause a material adverse effect on the integrity or security of, or damage to, Company EPS or to the electric systems of others to which the Company EPS is directly connected. Company shall notify Interconnecting Customer promptly of the emergency condition. Interconnecting Customer shall notify Company promptly when it becomes aware of an emergency condition that affects the Facility that may reasonably be expected to affect the Company EPS. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, or the expected effect on the operation of both Parties' facilities and operations, its anticipated duration and the necessary corrective action.

- b. **Routine Maintenance, Construction and Repair.** Company shall have the right to disconnect the Facility from the Company EPS when necessary for routine maintenance, construction and repairs on the Company EPS. The Company shall provide the Interconnecting Customer with a minimum of seven calendar days planned outage notification consistent with the Company's planned outage notification protocols. If the Interconnecting Customer requests disconnection by the Company at the PCC, the Interconnecting Customer will provide a minimum of seven days' notice to the Company. Any additional notification requirements will be specified by mutual agreement in the Interconnection Service Agreement. Company shall make an effort to schedule such curtailment or temporary disconnection with Interconnecting Customer.
- c. **Forced Outages.** During any forced outage, Company shall have the right to suspend interconnection service to effect immediate repairs on the Company EPS; provided, however, Company shall use reasonable efforts to provide the Interconnecting Customer with prior notice. Where circumstances do not permit such prior notice to Interconnecting Customer, Company may interrupt Interconnection Service and disconnect the Facility from the Company EPS without such notice.
- d. **Non-Emergency Adverse Operating Effects.** The Company may disconnect the Facility if the Facility is having an adverse operating effect on the Company EPS or other customers that is not an emergency, and the Interconnecting Customer fails to correct such adverse operating effect after written notice has been provided and a maximum of 45 days to correct such adverse operating effect has elapsed.
- e. **Modification of the Facility.** Company shall notify Interconnecting Customer if there is evidence of a material modification to the Facility and shall have the right to immediately suspend interconnection service in cases where such material modification has been implemented without prior written authorization from the Company.
- f. **Re-connection.** Any curtailment, reduction or disconnection shall continue only for so long as reasonably necessary. The Interconnecting Customer and the Company shall cooperate with each other to restore the Facility and the Company EPS, respectively, to their normal operating state as soon as reasonably practicable following the cessation or remedy of the event that led to the temporary disconnection.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 51

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

## 7.2 Permanent Disconnection

The Interconnecting Customer has the right to permanently disconnect at any time with 30 days written notice to the Company.

The Company may permanently disconnect the Facility upon termination of the Interconnection Service Agreement in accordance with the terms thereof.

## 8.0 Metering, Monitoring, and Communication

This Section sets forth the rules, procedures and requirements for metering, monitoring and communication between the Facility and the Company EPS where the Facility exports power or is net metered or is otherwise subject to ISO-NE requirements. Interconnecting Customer will be responsible for reasonable and necessary costs incurred by Company for the purchase, installation, operation, maintenance, testing, repair and replacement of metering and data acquisition equipment specified in the Attachments to the Interconnection Service Agreement. Interconnecting Customer's metering (and data acquisition, as required) equipment shall conform to rules and applicable operating requirements.

### 8.1 Metering, Related Equipment and Billing Options

The Company shall furnish, read and maintain all revenue metering equipment. The Interconnecting Customer shall furnish and maintain all meter mounting equipment such as or including meter sockets, test switches, conduits, and enclosures. The Company shall own the meter and the Interconnecting Customer shall pay to the Company a monthly charge to cover taxes, meter maintenance, incremental reading and billing costs, the allowable return on the invoice cost of the meter and the depreciation of the meter. These charges are set forth in the applicable Company tariff(s), as amended from time to time. Metering requirements and associated charges for Qualifying Facilities and On-Site Generating Facilities are set forth in the applicable Company tariff(s), as amended from time to time. All metering must meet the requirements contained in the Company's Electric Service Bulletin (ESB) 750, section 7; Metering, as may be amended from time to time.

The Interconnecting Customer shall provide suitable space within the Facility for installation of the metering, and communication equipment at no cost to the Company.

If the Metering Point and the Point of Receipt or Point of Delivery are not at the same location, the metering equipment shall record delivery of electricity in a manner that accounts for losses occurring between the Metering Point and the Point of Receipt or Point of Delivery. Losses between the Metering Point and Point of Receipt will be reflected pursuant to applicable Company, ISO-NE criteria, rules or standards.

The type of metering equipment to be installed at a Facility is dependent on the (size) of the Facility and how and if the Facility plans to export power or net meter. For those that will export power or net meter, the available equipment options and associated requirements are:

- a) Net Metering – For Facilities described in the Company's Net Metering Provision, the

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 52

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Facilities will be equipped with net metering in which metering equivalent to or replicating that of a standard distribution class meter is installed and is enabled to run in a normal direction during periods of net consumption and to run backwards during periods of net generator output. All metering equipment included in this type of installation, including self-contained meters and instrument transformers and meters, shall meet ANSI C12.1 Metering Accuracy Standards and ANSI C57.13 accuracy requirements for instrument transformers. For net-metered units over 25 kW, remote access will be required. The Interconnecting Customer shall be responsible for providing all necessary leased or wireless telephone lines and any necessary protection for leased lines to remotely access these meters. In the event a wireless meter is requested, and the request is granted by the Company, the Interconnecting Customer will be responsible for all wireless communication charges paid on behalf of the Interconnecting Customer by the Company.

- b) Renewable Energy Growth Program – For Facilities enrolled in the Company’s Renewable Energy Growth Program, metering shall be installed in parallel with the existing metering on-site (if applicable)
- c) Renewable Energy Growth Program and other non-net metered units under 25 kW: Bi-directional, non-interval meter without remote access – in which a distribution class meter with import and export capabilities is installed. Import capabilities will record energy flows from the Company to the Facility during periods when the Facility is a net consumer of energy (the export function will record no flow during these periods) and an export capabilities will record energy flows from the Facility to the Company during periods when the Facility is a net producer of energy (the import function will record no flow during these periods). The import and export capabilities will record total flows only and will not record flows during specific intervals.
- d) Renewable Energy Growth Program and other non-net metered units over 25 kW: Bi-directional, interval meter with remote access – in which a distribution class meter with import and export capabilities is installed. Import capabilities will record energy flows from the Company to the Facility during periods when the Facility is a net consumer of energy (the export function will record no flow during these periods) and an export capabilities will record energy flows from the Facility to the Company during periods when the Facility is a net producer of energy (the import function will record no flow during these periods). The import and export capabilities will record total flows as well as flows during hourly intervals. In addition, the meters will be equipped with remote access capability that may include communication to the extent required by applicable NEPOOL standards. Any existing Company meter on the Interconnecting Customer’s premise will be changed to an interval meter and will require remote access as outlined below. All metering equipment included in this type of installation shall meet the requirements contained in ISO-NE Operating Procedure No. 18, “Metering and Telemetry Criteria” and the Company’s Electric Service Bulletin (ESB) 750, section 7; Metering, as may be amended from time to time. Copies of both publications are available from the Company upon request. The Interconnecting Customer shall be responsible for providing all necessary leased or wired telephone lines and any necessary protection for leased lines to remotely access these meters. In the event that an Interconnecting Customer requests a wireless meter and the Company grants the request, the Interconnecting

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 53

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Customer will be responsible for all wireless communication charges paid on behalf of the Interconnecting Customer by the Company. In addition, the Interconnecting Customer is responsible for all communication required by ISO-NE, or by ISO- NE's designated satellite. The Interconnecting Customer shall maintain all communication and transducer equipment at the Facility in accordance with ISO- NE criteria, rules and standards.

**Units over 5 MW:** Facilities which are greater than or equal to 5 MW or in aggregate with other Facilities on the same feeder and near the point of interconnection are 5 MW or greater are governed by NEPOOL Operating Procedures No. 14 and No. 18 and are required to provide communication equipment and to supply accurate and reliable information to system operators regarding metered values for MW, MVAR, volt, amp, frequency, breaker status and all other information deemed necessary by ISO-NE and REMVEC)as well as a 24/7 contact name and phone number for operational instructions from the ISO-NE.

## 8.2 Additional Monitoring and Communication Requirements

As the amount of distributed generation on the Company EPS grows significantly, additional monitoring and communication may be required by the Commission pursuant to a future proceeding.

## 9.0 Dispute Resolution Process

The Dispute Resolution Process is a multi-stage process described below, ~~beginning with negotiation, then mediation, followed by non-binding arbitration and then adjudication. All days in this Section are calendar days. The dispute resolution process is appropriate where there is a factual dispute over whether a rule, regulation or tariff has been violated. The dispute resolution process is for project-specific disputes; it is not a forum to challenge an existing policy, rule, regulation, tariff provision, or executed ISA. Neither a third-party mediator/arbitrator nor Commission staff can propose a resolution that shifts costs properly allocated to an Interconnecting Customer under the tariff to the general body of customers. Interconnection issues within the Commission's jurisdiction, which require a Commission ruling on issues of law or tariff interpretation, are not appropriate for the Dispute Resolution Process, and must be addressed through a Petition under the Commission's Rules of Practice and Procedure.~~

### 9.1 Good Faith Negotiation

- a. One party submits a request in writing to the other party for initiation of Step 9.1 of the Dispute Resolution Process. The Parties will elevate the dispute to a Vice President or senior management with sufficient authority to make a decision.
- b. If, after 8 days, the dispute is still not resolved, one or both Parties may initiate Section 9.2.a

### 9.2 Mediation/Non-binding Arbitration

- a. ~~If the dispute is not resolved under Section 9.1, One party to the dispute may request dispute resolution assistance by -submitting a written request to the Commission. The request must include the following information:- with a summary of the situation. The party~~

Formatted: Font: 12 pt

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2463~~2180  
Sheet 54

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

~~requesting mediation/non-binding arbitration dispute resolution (“Requesting Party”)-~~  
~~assistance shall provide a copy of the written request to the other party, the Division of Public~~  
~~Utilities & Carriers and the Office of Energy Resources at the same time that it submits its~~  
~~written request to the Commission. Within ten business days after the written request to the~~  
~~Commission for dispute resolution, the other party shall also submit a summary of the~~  
~~situation to the Commission and provide a copy of the summary to the Requesting Party.~~  
1. The rule, regulation, or tariff provision in dispute. If the request is being submitted by the  
Customer, the request should clearly state the rule, regulation, or tariff provisions the  
Customer believes the Company violated.  
2. A concise and comprehensive recitation of the facts of the dispute.  
3. A clear statement of the remedy sought. The Commission does not have jurisdiction to  
award monetary damages under this tariff or R.I. Gen. Laws § 39-26.3-1 to 6.

The party requesting ~~mediation/non-binding arbitration dispute resolution (“Requesting Party”)-~~  
~~assistance~~ shall provide a copy of the written request to the other party, the Division of Public Utilities  
& Carriers and the Office of Energy Resources at the same time that it submits its written request to the  
Commission. Within ten business days after the written request to the Commission for dispute resolution,  
the other party shall also submit a summary of the situation to the Commission and provide a copy of  
the summary to the Requesting Party.

- b. Within 17 business days of the submission of a petition to convene the Dispute Resolution Process, the Parties will meet with Commission staff at a date and time set by the Commission staff. During that meeting, they may assist the parties in attempting to resolve the outstanding differences, or shall provide two options to the parties: (1) to engage with the Commission staff to attempt to resolve the dispute or make recommendations to the Commission or (2) to proceed with formal mediation/arbitration as set forth in 9.2.c-1.

In the event the parties choose to engage the assistance of the Commission staff, the Commission staff will set a reasonable schedule for the submission of any discovery issued by the Commission staff and for a subsequent meeting with the parties. The matter will proceed as directed by the Commission staff and any party may request to move to the formal third-party mediation/arbitration set forth in 9.2.c-1 prior to the final meeting conducted by the Commission staff. Any information obtained by the Commission staff, maintained by the Commission Clerk, shall be made available to the third-party mediator/arbitrator. Within ninety (90) business days of the convening of the Dispute Resolution Process, the Commission staff shall submit a summary of the dispute resolution process with the resolution, if one was agreed to, or recommendations to the Commission for its review under Rule 9.3.

- c. If the differences are not resolved in Step 9.2.b, the Commission will provide a list of qualified neutrals and manage the selection of individual neutrals for the case. The Commission will use a list of pre-qualified neutrals maintained at the Commission and, the Parties will select a mutually agreeable mediator pursuant to a reverse-strike-out process<sup>2</sup> or

<sup>2</sup> A “reverse strike out process” involves each party eliminating the least desirable mediator until one is left standing.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 55

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

another mutually-agreeable method. If either party requests a technical expert, both a mediator and a technical expert will be selected, and the technical expert will be selected using the same strike out process or another mutually-agreeable method as that used for selection of the mediator.

- d. Parties will complete the neutral selection process with the Commission within seven days. This timetable will only be possible if the Commission has, during the initial 14 days, identified mediators and technical experts who have the time available to assist the Parties in a timely manner.
- e. The Commission will arrange for the selected mediator to contact Parties.
- f. The Parties will contract with neutrals for services, splitting the fees 50/50.
- g. The mediator begins by discussing the case with the disputing Parties to assess the scope of issues and understand the Parties' positions and interests. The mediator and Parties will establish a schedule for completion of mediation within 30 days. Ten days after the 30-day time period begins, the Commission will issue a public notice of the proceeding and will schedule a pre-hearing conference for Section 9.3. The mediator will assist the Parties in developing a scope of work for the technical expert if one is needed. The mediator will also assist the Parties in estimating the Dispute Resolution Process costs and addressing any concerns about those costs.
- h. Mediation meeting or meetings are held.
- i. If the Parties reach agreement, the Dispute Resolution Process ends here.
- j. If the Parties do not reach a mediated agreement, the neutral(s) will issue a brief recommended solution or decision.
- k. If the Parties accept the neutral's recommendation, the Dispute Resolution Process ends here.
- l. If one or both Parties do not accept the neutral recommendation and there is still no agreement, the dispute proceeds to Step 9.3.
- m. Notwithstanding any provisions contained in this section, the parties may agree to have formal arbitrations conducted by Commission staff.

### 9.3 Commission Adjudicatory Hearing

The goal of this Step is an adjudicatory hearing at the Commission, with witnesses, evidence, etc. that results in a binding precedential decision, appealable to the Rhode Island Supreme Court.

- a. In the event a party does not accept the recommendation in Step 9.2, it may request, in writing,

---

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 56

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

- a Commission adjudication.
- b. The Commission holds a pre-hearing conference for which notice has been provided in accordance with Section 9.2.g. The Parties, to the extent desirable and feasible, exchange information and establish an expedited schedule during the pre-hearing conference.
  - c. The Commission and the Parties engage in pre-hearing discovery, as needed in the specific case, building on the information developed in Step 9.2, including the mediator's recommendation.
  - d. The Commission conducts a hearing.
  - e. The Parties file briefs, if one or both desire to do so or the Commission requests they do so. The Parties and the Commission will complete Step 9.3.b through 9.3.e in 90 days.
  - f. The Commission issues its order within 20 days. If it is unable to do so, it will notify the Parties and provide a revised decision date.

The Commission will appoint a hearing officer or other Commission staff person familiar with the DG interconnection process in Rhode Island to oversee the selection of private neutrals and otherwise serve as a resource for DG cases.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 57

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Table 3 – Dispute Resolution Timeframes**

<u>Dispute Resolution</u>	<u>Timeline</u>
<u>Step 9.1: Good faith negotiation – party submits a request in writing to the other party</u>	–
<u>Parties elevate dispute to VP or Sr. Management for decision</u>	<u>Within 8 days</u>
<u>If dispute not resolved to step 9.2</u>	–
<u>Step 9.2: Submit a written request to the Commission</u>	–
<u>Meet with Commission hearing officer to convene dispute resolution process</u>	<u>Within 17 days</u>
<u>If needed, neutral third party and technical expert are selected</u>	<u>Within 7 days</u>
<u>Public notice of mediation process</u>	<u>Within 10 days of the 30 days listed below</u>
<u>Mediation process</u>	<u>Within 30 days</u>
<u>If still not resolved proceed to step 9.3</u>	–
<u>Step 9.3: Adjudicatory hearing</u>	<u>Within 90 days</u>
<u>Commission issues order</u>	<u>Within 20 days</u>

Formatted: Font: 14 pt

Formatted: Font: 14 pt, Not Bold

Formatted: Heading 2, Centered, Space Before: 0 pt

Formatted: Font: 14 pt

Formatted Table

Formatted Table

Formatted: Centered



R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 58

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

#### 9.4 Interconnection Technical Standards Committee

The Interconnection Technical Standards Committee (ITSC) will facilitate the timely flow of technical information, and introduce potential changes to the technical requirements of interconnection as national standards change. The ITSC shall be comprised of representatives of National Grid (two members, at least one of which will have experience in the technical aspects of interconnection and shall be chaired by the Company), the Rhode Island Office of Energy Resources (one member), the Division of Public Utilities and Carriers (one member), industry (two members, with at least one of the members having experience in the technical aspects of interconnection), and ISO-NE (one member). The Chair of the ITSC shall be one of the National Grid representatives and the Vice Chair will be a technical representative from the DG Community. The ITSC will meet on a schedule to be determined by the Chair and Vice-Chair, but no less than quarterly each year to discuss, among other topics, both common and Company-specific technical standards for DG interconnection. The Chair and Vice Chair shall jointly determine the agenda of each meeting. The Company will host a webpage that includes contact information of the ITSC members, meeting dates and materials, including a quarterly report-out of activities. ITSC meetings are not public open meetings due to the potentially sensitive nature of meeting topics. Industry professionals and the public outside of the ITSC may be made aware of opportunities to attend meetings and may offer comments to the Committee.

Formatted: Indent: Left: 0", First line: 0", Space Before: 0 pt, Tab stops: 0.38", Left + Not at 0.32"

The Company will from time to time change or amend its technical standards, specifications, and provisions of the electric service bulletin (ESB) for interconnection applications covered in this Interconnection Tariff and for electric service in general. When the Company is considering changes that are likely to materially impact proposed Facilities or future applications in this Interconnection Tariff, the Company shall provide a draft of the proposed changes to its standards to the ITSC and Interconnecting Customers with potentially impacted applications prior to those changes going into effect. In non-emergency scenarios, the Company will make reasonable efforts to provide such proposed changes no less than ninety (90) calendar days prior to implementation, and where practicable the Company will take into consideration feedback from the ITSC about how such changes would impact Interconnecting Customers. Unless specifically prohibited by the Rhode Island Public Utilities Commission, the Company may make any changes to its technical standards that are aligned with Good Utility Practice or otherwise necessary to comply with its obligations to provide safe and reliable electric service as a regulated entity.

Formatted: Indent: Left: 0"

## 10.0 Insurance Requirements

### 10.1 General Liability

- 10.1(a) In connection with Interconnecting Customer's performance of its duties and obligations under the Interconnection Service Agreement, Interconnecting Customer shall maintain, during the term of the Agreement, general liability insurance with a combined single limit of not less than:
  - i. Five million dollars (\$5,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than five (5) MW;
  - ii. Two million dollars (\$2,000,000) for each occurrence and five million dollars

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 59

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

(\$5,000,000) in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one (1) MW and less than or equal to five (5) MW;

- iii. One million dollars (\$1,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one hundred (100) kW and less than or equal to one (1) MW;
  - iv. Five hundred thousand dollars (\$500,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than ten (10) kW and less than or equal to one hundred (100) kW, except for eligible net metered customers which are exempt from insurance requirements.
- 10.1(b) No insurance is required for a Facility with a Gross Nameplate Rating less than or equal to 50 kW that is eligible for net metering. However, the Company recommends that the Interconnecting Customer obtain adequate insurance to cover potential liabilities.
- 10.1(c) Any combination of General Liability and Umbrella/Excess Liability policy limits can be used to satisfy the limit requirements stated above.
- 10.1(d) The general liability insurance required to be purchased in this Section may be purchased for the direct benefit of the Company and shall respond to third party claims asserted against the Company (hereinafter known as "Owners Protective Liability"). Should this option be chosen, the requirement of Section 10.2(a) will not apply but the Owners Protective Liability policy will be purchased for the direct benefit of the Company and the Company will be designated as the primary and "Named Insured" under the policy.
- 10.1(e) The insurance hereunder is intended to provide coverage for the Company solely with respect to claims made by third parties against the Company.
- 10.1(f) In the event the State of Rhode Island and the Providence Plantations, or any other governmental subdivision thereof subject to the claims limits of R.I.G.L. Chapter 9-31 (hereinafter referred to as the "Governmental Entity") is the Interconnecting Customer, any insurance maintained by the Governmental Entity shall contain an endorsement that strictly prohibits the applicable insurance company from interposing the claims limits of R.I.G.L. Chapter 9-31 as a defense in either the adjustment of any claim, or in the defense of any lawsuit directly asserted against the insurer by the Company. Nothing herein is intended to constitute a waiver or indication of an intent to waive the protections of R.I.G.L. Chapter 9-31 by the Governmental Entity. The Interconnecting Customer must provide proof of their eligibility to be classified a Governmental Entity.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 60

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

## 10.2 Insurer Requirements and Endorsements

All required insurance shall be carried by reputable insurers qualified to underwrite insurance in Rhode Island having a Best Rating of “A-”. In addition, all insurance shall, (a) include Company as an additional insured; (b) contain a severability of interest clause or cross- liability clause; (c) provide that Company shall not incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days’ written notice to Company prior to cancellation, termination, or material change of such – insurance; provided that to the extent the Interconnecting Customer is satisfying the requirements of subpart (e) of this paragraph by means of a presently existing insurance policy, the Interconnecting Customer shall only be required to make good faith efforts to satisfy that requirement and will assume the responsibility for notifying the Company as required above.

## 10.3 Evidence of Insurance

Evidence of the insurance required shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Interconnecting Customer.

The Interconnecting Customer is responsible for providing the Company with evidence of insurance in compliance with this Interconnection Tariff on an annual basis.

Prior to the Company commencing work on System Modifications, and annually thereafter, the Interconnecting Customer shall have its insurer furnish to the Company certificates of insurance evidencing the insurance coverage required above. The Interconnecting Customer shall notify and send to the Company a certificate of insurance for any policy written on a "claims-made" basis. The Interconnecting Customer will maintain extended reporting coverage for three years on all policies written on a "claims-made" basis.

In the event that an Owners Protective Liability policy is provided, the original policy shall be provided to the Company.

~~Table 3—Dispute Resolution timeframes~~

<del>Dispute Resolution</del>	<del>Timeline</del>
<del>Step 9.1: Good faith negotiation—party submits a request in writing to the other party</del>	<del>=</del>
<del>Parties elevate dispute to VP or Sr. Mgt for decision</del>	<del>Within 8 days</del>
<del>If dispute not resolved to step 9.2</del>	<del>=</del>
<del>Step 9.2: Submit a written request to the Commission</del>	<del>=</del>
<del>Meet with Commission hearing officer to convene dispute resolution process</del>	<del>Within 17 days</del>

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 61

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

<del>If needed, neutral third-party and technical expert are selected</del>	<del>Within 7 days</del>
<del>Public notice of mediation process</del>	<del>Within 10 days of the 30 days listed below</del>
<del>Mediation process</del>	<del>Within 30 days</del>
<del>If still not resolved proceed to step 9.3</del>	<del>=</del>
<del>Step 9.3: Adjudicatory hearing</del>	<del>Within 90 days</del>
<del>Commission issues order</del>	<del>Within 20 days</del>

#### 11.0 Limitation of Liability

Effective for Renewable Interconnecting Customer Applications received on or after July 1, 2017, notwithstanding any provision herein to the contrary, any actual damages that a court of competent jurisdiction orders the Company to pay to an Renewable Interconnecting Customer as a direct result of the Company's failure to comply with the timelines for Renewable DG set forth in Table 1 of this Interconnection Tariff shall be subject to R.I. Gen. Laws § 39-26.3-4.1.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 62

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

## Exhibit A – Simplified Process Interconnection Application Instructions *(please do not submit this page)*

Formatted: Centered, Indent: Left: 0"

**General Information:** If you, the Interconnecting Customer, wish to submit an application to interconnect your generating Facility using the Simplified Process (reference Section 3.1 of the Interconnection Tariff for eligibility) please fill out the attached application form completely (not including this page of instructions), including your signature in the space provided. Interconnections that may be eligible for this Simplified Process include UL 1741-Listed inverter-based Facilities that are either (1) connecting to radial electric power systems with power ratings of  $\leq 10$  kW single-phase or  $\leq 25$  kW three-phase, or (2) connecting to spot network electric power systems with power ratings of  $\leq 15$  kW single-phase. Please attach any documentation provided by the inverter manufacturer concerning the UL 1741 listing provided by the manufacturer.

Mail all material to:

National Grid  
40 Sylvan Road  
2nd Floor East, E2.577  
Waltham, MA 02451  
Attn: RI Interconnection Application

The Simplified Process is as follows:

1. Application process:
  - a. Interconnecting Customer submits a Simplified Application filled out properly and completely.
  - b. The electric utility (Company) acknowledges to the Interconnecting Customer receipt of the application within 3 business days of receipt.
  - c. Company evaluates the application for completeness and notifies the Interconnecting Customer within 10 business days of receipt that the application is or is not complete and, if not, advises what is missing.
2. Company verifies Facility equipment can be interconnected safely and reliably.
3. If approved, the Company signs the application approval line and sends to the Interconnecting Customer. In certain rare circumstances, the Company may require the Interconnecting Customer to pay for minor System Modifications. If so, a description of work and an estimate will be sent back to the Interconnecting Customer for approval. The Interconnecting Customer would then approve via a signature and payment for the minor System Modifications. If the Interconnecting Customer approves, the Company performs the System Modifications. Then, the Company signs the application approval line and sends to the Interconnecting Customer.
4. Upon receipt of the signed application, the Interconnecting Customer installs the Facility. Then the Interconnecting Customer arranges for inspection of the completed installation by the local electrical wiring inspector, or other authority having jurisdiction, and this person signs the Certificate of Completion. If the Facility was installed by an electrical contractor, this person also fills out the Certificate of Completion.
5. The Interconnecting Customer returns the Certificate of Completion to the Company.
6. Following receipt of the Certificate of Completion, the Company may inspect the Facility for compliance with standards by arranging for a Witness Test. The Interconnecting Customer has no right to operate in parallel (interconnect) until a Witness Test has been performed or has been previously waived on the Application Form. The Company is obligated to complete this Witness Test within 10 business days of the receipt of the Certificate of Completion. If the Company does not inspect in 10 business days or by mutual agreement of the Parties, the Witness Test is deemed waived.
7. Assuming the wiring inspection and/or Witness Test is satisfactory, the Company notifies the

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 63

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Interconnecting Customer in writing that interconnection is authorized. If the Witness Test is not satisfactory, the Company has the right to disconnect the Facility, and will provide information to the Interconnecting Customer describing clearly what is required for approval.

Contact Information: You must provide the contact information for the legal applicant (i.e. the Interconnecting Customer). If other parties are responsible for interfacing with the Company, you should provide their contact information as well.

Ownership Information: Please enter the legal names of the owner or owners of the Facility. Include the percentage ownership (if any) by any Company or public utility holding company, or by any entity owned by either.

Generating Facility Information: Please consult an actual electric bill from the Electric Service Company and enter the correct Account Number and Meter Number on this application. If the facility is to be installed in a new location, a temporary number may be assigned by the Electric Company.

UL 1741 Listed? The standard UL 1741, "Inverters, Converters, and Controllers for Use in Independent Power Systems," addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers choose to submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL 1741. This term "Listed" is then marked on the equipment and supporting documentation.

#### **Eligibility Requirements for the Renewable Energy Growth (REG) Program**

##### **Introduction**

To be eligible, a Small-Scale Solar Project must meet certain requirements, and National Grid will review the interconnection application to determine whether the project meets these requirements. Projects that do not meet eligibility requirements will be disqualified from the REG Program.

##### **Eligible Applicant**

An Applicant must be in good standing with regard to obligations to National Grid. Such obligations include but are not limited to being current with amounts due on the electric service account(s) or fulfilling the requirements of an approved payment plan.

##### **Eligible Facilities**

To be eligible as a Small-Scale Solar Project, a project must: (1) be a Small-Scale Solar renewable energy resource; (2) have a nameplate capacity equal to or less than 25 kW; and (3) interconnect with the Company's electric power system. A Small-Scale Solar Project's nameplate capacity is the total rated power output of all solar panels measured in DC. Before applying to the RE Growth Program, a project must not be: (1) already operating; or (2) under construction, except for preparatory site work that is less than twenty-five percent (25%) of the estimated total project cost.

##### **Residential**

To be eligible as a Residential Small-Scale Solar Project, a project must be located at a National Grid customer's residence where the residential customer receives electric service under the Company's residential rate schedules as provided for in the tariffs governing the REG Program, as may be amended from time to time.

##### **Non-Residential**

R.I.P.U.C. No. ~~2180~~-2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 64

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Any Small-Scale Solar Project that is not eligible to enroll as a Residential Small-Scale Solar Project will be enrolled as a Non-Residential Small-Scale Solar Project. Note that these projects may also be configured for net metering but are not required to do so. These projects will receive retail delivery service pursuant to the Company's small and medium rate schedules as provided for in the tariffs governing the REG Program, as may be amended from time to time.

**Prohibition on Project Segmentation**

Project segmentation occurs when one distributed generation project is divided or segregated into multiple projects on a single parcel or on contiguous parcels in order to qualify under smaller size project classifications.

Under the REG Program, project segmentation is not allowed. However, a project developer may designate an additional distributed generation unit or portion of a unit on the same parcel or on a contiguous parcel for net metering or for other means of participating in electricity markets, as long as any such unit or portion of such unit: (1) is not receiving Performance-Based Incentives through the REG Program; (2) is segregated electrically; and (3) is separately metered.

A distributed generation project is not considered segmented if: (1) at least twenty-four (24) months elapse between the operating start-date of the distributed generation project and the start of construction of new distributed generation unit(s) on the same parcel or a contiguous parcel; or (2) the distributed generation projects use different renewable resources.

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~24632180~~  
Sheet 65

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Exhibit A - Simplified Process Interconnection Application and Service Agreement**

**Contact Information (PRINT):**

Interconnecting Customer : \_\_\_\_\_ Contact Person: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone (Primary): \_\_\_\_\_ Telephone (Secondary): \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail (s): \_\_\_\_\_

**Host Retail Customer Contact Information (complete any information that is different from Interconnecting Customer)**

Retail Customer: \_\_\_\_\_ Contact Person \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone (primary): \_\_\_\_\_ Telephone (Secondary) \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail(s): \_\_\_\_\_

**Alternative Contact Information (e.g., system installation contractor or coordinating company, if appropriate):**

Contact Name: \_\_\_\_\_ Company Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone (Primary): \_\_\_\_\_ Telephone (Secondary): \_\_\_\_\_  
Fax: \_\_\_\_\_ E-Mail (s): \_\_\_\_\_

**Electrical Contractor Contact Information (if appropriate):**

Name (Print): \_\_\_\_\_  
Mailing Address: \_\_\_\_\_ Telephone: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_

**Ownership Information (include % ownership by any electric utility):** \_\_\_\_\_

**Facility Information:**

**Description:**

Address of Facility: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Electric Service Company: National Grid Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_



R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 66

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Work Request Number (For Upgrades or New Service): \_\_\_\_\_  
Inverter Manufacturer: \_\_\_\_\_ Model Name and Number: \_\_\_\_\_ Quantity: \_\_\_\_\_  
Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts) Single ☐ or Three ☐ Phase  
System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) For Solar PV provide the DC-STC rating: \_\_\_\_\_ (kW)  
Prime Mover: Photovoltaic ☐ Reciprocating Engine ☐ Fuel Cell ☐ Turbine ☐ Other \_\_\_\_\_  
Energy Source: Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas ☐ Fuel Oil ☐ Other \_\_\_\_\_  
IEEE 1547.1 (UL 1741) Listed? Yes ☐ No ☐ Generating system already exists on current account? Yes ☐ No ☐

Customer Program Elections:

A customer may make a program election for a project on this interconnection application. National Grid will review the customer's responses provided here and other information to determine whether the project meets these requirements.

Applying for Net Metering? Yes ☐ No ☐

Applying to Renewable Energy Growth Program? Yes ☐ No ☐ (If yes, must be configured for Net Metering and the Customer electric account(s) must be in good standing)

Is the Customer receiving electric service as Basic Residential Rate A-16 or Low Income Rate A-60? Yes ☐ No ☐

Does the Customer have site control for the Project? Yes ☐ No ☐

Is the Project already operating? Yes ☐ No ☐ (If yes, not eligible for Renewable Energy Growth Program)

Is the Project more than 25% constructed? ☐ Yes ☐ No (If yes, not eligible for Renewable Energy Growth Program)

Is the Project segmented (divided or split into multiple projects on a single parcel or on contiguous parcels in order to qualify under smaller size project classifications)? ☐ Yes ☐ No (If yes, not eligible for Renewable Energy Growth Program)

Estimated Install Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

**Renewable Energy Growth Program Selection Only**

Panel Manufacturer, Model Name, and Number: \_\_\_\_\_ Quantity: \_\_\_\_\_

**Azimuth and Tilt of Panels**

Azimuth: (compass degree heading) \_\_\_\_\_ Tilt (degree tilt) \_\_\_\_\_

Total Project Costs: \_\_\_\_\_ Electrical Permit Fee: \_\_\_\_\_

Building Permit Fee: \_\_\_\_\_

If a project is at an existing location, has the location received an Energy Efficiency Audit? ☐ Yes ☐ No

Contract Term: 15yrs ☐ or 20yrs ☐

When Enrolling in the Renewable Energy Growth Program, customer account information and signature must be provided on the **Payment/Credit Transfer Form** and submitted with this application.

**Renewable Energy Growth Program Application Affidavit must be signed and returned with this application.**

Customer Signature

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true and I agree to the Terms and Conditions on the following page:

Interconnecting Customer Signature: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

***Please attach any documentation provided by the inverter manufacturer describing the inverter's UL 1741 listing.***

Approval to Install Facility (For National Grid use only)

Installation of the Facility is approved contingent upon the terms and conditions of this Agreement, and agreement to any system modifications, if required (Are system modifications required? Yes ☐ No ☐ To be Determined ☐

National Grid Signature: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_ Company waives inspection/Witness Test? Yes ☐ No ☐

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 67

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Terms and Conditions for Simplified Process Interconnections

1. **Construction of the Facility.** The Interconnecting Customer may proceed to construct the Facility once the Approval to Install the Facility has been signed by the Company.
2. **Interconnection and operation.** The Interconnecting Customer may operate Facility and interconnect with the Company's system once the following has occurred:
  - 2.1. **Municipal Inspection.** Upon completing construction, the Interconnecting Customer will cause the Facility to be inspected or otherwise certified by the local electrical wiring inspector with jurisdiction.
  - 2.2. **Certificate of Completion.** The Interconnecting Customer returns the Certificate of Completion appearing as Attachment 2 to the Agreement to the Company at address noted.
  - 2.3. **Company has completed or waived the right to inspection.**
3. **Company Right of Inspection.** Within ten (10) business days after receipt of the Certificate of Completion, the Company may, upon reasonable notice and at a mutually convenient time, conduct an inspection of the Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with the Interconnection Tariff. The Company has the right to disconnect the Facility in the event of improper installation or failure to return Certificate of Completion. If the Company does not inspect in 10 days or by mutual agreement of the Parties, the Witness Test is deemed waived.
4. **Safe Operations and Maintenance.** The Interconnecting Customer shall be fully responsible to operate, maintain, and repair the Facility.
5. **Access.** The Company shall have access to the disconnect switch (if required) of the Facility at all times.
6. **Disconnection.** The Company may temporarily disconnect the Facility to facilitate planned or emergency Company work.
7. **Metering and Billing.** All Facilities approved under this Agreement qualify for net metering, as approved by the Commission from time to time, and the following is necessary to implement the net metering provisions:
  - 7.1. **Interconnecting Customer Provides Meter Socket.** The Interconnecting Customer shall furnish and install, if not already in place, the necessary meter socket and wiring in accordance with accepted electrical standards.
  - 7.2. **Company Installs Meter.** The Company shall furnish and install a meter capable of net metering within ten (10) business days after receipt of the Certificate of Completion if inspection is waived, or within 10 business days after the inspection is completed, if such meter is not already in place.
8. **Indemnification.** Except as precluded by the laws of the State of Rhode Island and the Providence Plantations, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.
9. **Limitation of Liability.** Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.
10. **Termination.** This Agreement may be terminated under the following conditions:
  - 10.1. **By Mutual Agreement.** The Parties agree in writing to terminate the Agreement.
  - 10.2. **By Interconnecting Customer.** The Interconnecting Customer may terminate this Agreement by providing written notice to Company.
  - 10.3. **By Company.** The Company may terminate this Agreement (1) if the Facility fails to operate for any consecutive 12 month period, or (2) in the event that the Facility impairs the operation of the electric distribution system or service to other customers or materially impairs the local circuit and the Interconnecting Customer does not cure the impairment.
11. **Assignment/Transfer of Ownership of the Facility.** This Agreement shall survive the transfer of ownership of the Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.
12. **Interconnection Tariff.** These Terms and Conditions are pursuant to the Company's Tariff for the Interconnection of Customer-Owned Generating Facilities, as approved by the Rhode Island Public Utilities Commission and as the same may be amended from time to time ("Interconnection Tariff"). All defined terms set forth in these Terms and Conditions are as defined in the Interconnection Tariff (see Company's website for complete tariff).

Formatted: Left

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 68The Narragansett Electric Company  
Standards for Connecting Distributed Generation

## ATTACHMENT 2

**Certificate of Completion for Simplified Process Interconnections****Installation Information:**☐ Check if owner-installed

Customer or Company Name (print): \_\_\_\_\_

Contact Person, if Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Primary): \_\_\_\_\_ Telephone (Secondary): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail (s): \_\_\_\_\_

Address of Facility (if different from above): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_

Electrical Contractor's Company or Name (print): \_\_\_\_\_

Electrician Name, if Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Primary): \_\_\_\_\_ Telephone (Secondary): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail (s): \_\_\_\_\_

License number: \_\_\_\_\_

Date of approval to install Facility granted by the Company: \_\_\_\_\_

Application ID number: \_\_\_\_\_

**Inspection:**

The system has been installed and inspected in compliance with the local Building/Electrical Code of :

\_\_\_\_\_  
(City/Town)Signed/Date (Local/Federal Electrical Wiring  
Inspector, or attach signed electrical inspection): \_\_\_\_\_

Wiring Inspector Name (printed): \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed  
electrical permit to [Distributed.Generation@nationalgrid.com](mailto:Distributed.Generation@nationalgrid.com)

R.I.P.U.C. No. 2180-2244  
Canceling R.I.P.U.C. No. 21632180  
Sheet 69

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Exhibit B - Generating Facility Expedited/Standard Pre-Application Report Form**

Interconnecting Customer Name (print): \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_ Facsimile Number: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Alternative Contact Information (e.g., system installation contractor or coordinating company)

Name (print): \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Facility Information:

1) Proposed Facility Location (street address with cross streets, including town, and a Google Map still picture and GPS coordinates): \_\_\_\_\_

2) Generation Type: \_\_\_\_\_

3) Size (AC kW): \_\_\_\_\_

4) Single or Three Phase Generator Configuration: \_\_\_\_\_

5) Stand-alone (no on-site load, not including parasitic load)? Yes \_\_\_\_\_ No \_\_\_\_\_

6) If there is existing service at the Proposed Facility site, provide:

a) Interconnecting Customer Account Number

\_\_\_\_\_

b) site minimum and maximum (if available) current or proposed electric loads

i) Minimum kW: \_\_\_\_\_

ii) Maximum kW: \_\_\_\_\_

7) Is new service or service upgrade needed?: \_\_\_\_\_

8) Substation Name: \_\_\_\_\_

9) Circuit rating and approximate circuit length of nearest available feeder from the proposed Facility to the substation: \_\_\_\_\_

\_\_\_\_\_

**DISCLAIMER:** Be aware that this Pre-Application Report is simply a snapshot in time and is non-binding. System conditions can and do change frequently.

**Formatted:** Font: 10 pt

**Formatted:** List Paragraph, Left, Indent: Left: 0.38", Space Before: 0 pt, Tab stops: Not at 0.32"

**Formatted:** List Paragraph, Left, Indent: Left: 0.13", Space Before: 4.65 pt

**Formatted:** Left, Space Before: 0 pt

**Formatted:** Left, Indent: Left: 0.13", Space Before: 0 pt

**Formatted:** Underline

**Formatted:** Space Before: 0 pt

R.I.P.U.C. No. ~~2180-2244~~  
Canceling R.I.P.U.C. No. ~~2163-2180~~  
Sheet 70

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

### **Exhibit C – Expedited/Standard Process Interconnection Application** **Instructions** *(please do not submit this page)*

#### **General Information**

If you wish to submit an application to interconnect your generating facility using the Expedited or Standard Process, please fill out all pages of the attached application form (not including this page of instructions). Once complete, please sign, attach the supporting documentation requested and enclose an application fee of \$3/kW (minimum of \$300 and maximum of \$2,500).

Contact Information: You must provide as a minimum the contact information of the legal applicant. If another party is responsible for interfacing with the Company (utility), you may optionally provide their contact information as well.

Ownership Information: Please enter the legal names of the owner or owners of the generating facility. Include the percentage ownership (if any) by any electric service company (utility) or public utility holding company, or by any entity owned by either.

#### **Generating Facility Information**

Account and Meter Numbers: Please consult an actual electric bill from the Electric Service Company and enter the correct Account Number and Meter Number on this application. If the facility is to be installed in a new location, a temporary number may be assigned by the Electric Company.

UL 1741 Listed? The standard UL 1741, “Inverters, Converters, and Controllers for Use in Independent Power Systems,” addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers choose to submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL 1741. This “listing” is then marked on the equipment and supporting documentation.

DEM Air Pollution Control Permit Needed? A generating facility may be considered a point source of emissions of concern by the Rhode Island Department of Environmental Management (RIDEM). Therefore, when submitting this application, please indicate whether your generating facility will require an Air Pollution Control Permit. You must answer these questions, however, your specific answers will not affect whether your application is deemed complete. Please contact the RIDEM to determine whether the generating technology planned for your facility qualifies for a RIDEM waiver or requires a permit.

Jurisdictional Statement: The Company is a public utility subject to the concurrent jurisdiction of the Federal Energy Regulatory Commission (FERC) and the Rhode Island Public Utilities Commission (RIPUC). Pursuant to the Federal Power Act, FERC has jurisdiction over the transmission and sale of electric energy at wholesale in interstate commerce, including jurisdiction over certain generator interconnections. All of the Company’s transmission facilities (including distribution facilities and certain generator interconnection facilities serving a FERC-jurisdictional transmission function) are: (1) subject to FERC jurisdiction; (2) under the operating authority of the regional transmission operator ISO New England Inc. (ISO-NE); and (3) subject to the terms and conditions of the ISO-NE Transmission, Markets and Services Tariff (ISO-NE Tariff).

As the result of this application for interconnection service, the Company may determine that the interconnection is under FERC jurisdiction. If this is the case, the Company may direct the Interconnecting Customer to submit an Interconnection Request to ISO-NE under the ISO-NE Tariff or, if an Interconnection Service Agreement (ISA) is executed between the Company and the Interconnecting Customer under this RIPUC Tariff, the Company may file a copy of the ISA with FERC.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 71

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

### Generating Facility Expedited/Standard Process Interconnection Application

#### Contact Information

Date Prepared: \_\_\_\_\_

#### **Legal Name and address of Interconnecting Customer (or, Company name, if appropriate)**

Customer or Company Name: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Primary): \_\_\_\_\_ Telephone (Secondary): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail (s): \_\_\_\_\_

#### **Alternative Contact Information (e.g. system installation contractor or coordinating company)**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Primary): \_\_\_\_\_ Telephone (Secondary): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail (s): \_\_\_\_\_

**Ownership** (include % ownership by any electric utility): \_\_\_\_\_

#### Generating Facility Information

Address of Facility (if different from above): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Electric Service Company: National Grid Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_

Work Request Number (For Upgrades or New Service): \_\_\_\_\_

Type of Generating Unit: Synchronous ☐ Induction ☐ Inverter ☐

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (Volts) Single ☐ or Three ☐ Phase

Prime Mover: Fuel Cell ☐ Recip Engine ☐ Turbine ☐ Photo Voltaic ☐ Other ☐ Specify: \_\_\_\_\_

Energy Source: Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas ☐ Fuel Oil ☐ Other ☐ Specify: \_\_\_\_\_

For Solar PV provide system DCC-STC rating: \_\_\_\_\_ (kW) Requesting Feasibility Study? Yes ☐ No ☐

Please fill out required fields in the form below for the type of system specified above, the application will not be considered complete unless all required fields are filled out accurately

Need an air quality permit from RIDEM? Yes ☐ No ☐ Not Sure ☐

If "yes", have you applied for it? Yes ☐ No ☐ \_\_\_\_\_

For inverter based units – is the unit IEEE 1547.1 (UL 1741) Listed? Yes ☐ No ☐

Generating system already exists on current account? Yes ☐ No ☐

Planning to Export Power? Yes ☐ No ☐ A Cogeneration Facility? Yes ☐ No ☐

Will Customer generate more than 95% of their hourly consumption on an annual basis? Yes ☐ No ☐

Anticipated Export Power Purchaser: \_\_\_\_\_

#### Purpose of Generating Facility:

PLEASE READ THE QUESTIONS BELOW CAREFULLY. YOU MUST NOTIFY THE COMPANY AS EARLY AS POSSIBLE IF YOUR ANSWERS TO THE QUESTIONS IN THIS SECTION WOULD BE DIFFERENT AT ANY POINT IN THE FUTURE.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 72

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

1. Exporting Electricity?

Please check only a single response below.

☐ This Facility will never export any electricity to the electric grid.

OR

☐ This Facility will export electricity to the electric grid under the net metering tariff, and Schedule B is attached here.

OR

☐ This Facility will export electricity to the electric grid and plans to enroll in the Renewable Growth tariff. If so, does the Facility have site control? ☐ Yes ☐ No

OR

☐ This Facility will export electricity to the electric grid under the net metering tariff, and Schedule B is attached here, and plans to enroll in the Renewable Growth tariff.

If so, does the Facility have site control? ☐ Yes ☐ No

OR

☐ I do not yet know whether this Facility will export electricity to the electric grid.

2. Net Annual Exporter of Electricity?

Please check only a single response below.

☐ This Facility will never export more electricity than it will consume over the course of one year.

OR

☐ This Facility will export more electricity than it will consume over the course of one year.

OR

☐ I do not yet know whether this Facility will export more electricity than it will consume over the course of one year.

3. Selling Electricity?

Please check only a single response below.

☐ All of the electricity produced by this Facility will be sold to a customer who will seek net metering credits from the Company and use the credits on the customer's electricity accounts.

OR

☐ All of the electricity produced by this Facility plans to be sold through the Renewable Energy Growth Program tariff. If so, does the Facility have site control? ☐ Yes ☐ No

OR

☐ All of the electricity from this Facility will be sold directly into the regional wholesale electricity market. (For more information, please see: [www.iso-ne.com/regulatory/tariff/sect\\_3/index.html](http://www.iso-ne.com/regulatory/tariff/sect_3/index.html).)

4. Seeking Capacity Revenue?

Please check only a single response below.

☐ This Facility will never seek capacity credit from the ISO-New England Forward Capacity Market (FCM).

OR

☐ This Facility will seek capacity credit from the FCM. (For more information, please see: [www.iso-ne.com/markets/othrmkts\\_data/fcm/index.html](http://www.iso-ne.com/markets/othrmkts_data/fcm/index.html).)

OR

☐ I do not yet know whether this Facility will seek capacity credit from the FCM.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 73

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

5. Qualifying Facility Certification?

Please check only a single response below.

☐ This Facility will not seek QF status from FERC.

OR

☐ This Facility has already sought or will seek certification from the Federal Energy Regulatory Commission (FERC) as a Qualifying Facility (QF). (For more information, please see: [www.ferc.gov/industries/electric/gen-info/qual-fac.asp](http://www.ferc.gov/industries/electric/gen-info/qual-fac.asp).)

OR

☐ I do not yet know whether this Facility will seek QF status.

Est. Install Date: \_\_\_\_\_ Est. In-Service Date: \_\_\_\_\_ Agreement Needed By: \_\_\_\_\_

Est. Install Date: \_\_\_\_\_ Est. In-Service Date: \_\_\_\_\_ Agreement Needed By: \_\_\_\_\_

**Application Process**

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true:

Interconnecting Customer Signature: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

National Grid Signature: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Generating Facility Technical Detail**

Date: \_\_\_\_\_

Information on components of the generating facility that are using UL Listed equipment (i.e., primarily solar, but if the proposed Facility is using a UL Listed inverter, please fill out below) :

Equipment Type	Manufacturer	Model	National Standard
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			

Total Number of Generating Units in Facility? \_\_\_\_\_

Generator Unit Power Factor Rating: \_\_\_\_\_

Max Adjustable Leading Power Factor? \_\_\_\_\_ Max Adjustable Lagging Power Factor? \_\_\_\_\_

**Generator Characteristic Data (for all inverter-based machines)**

Max Design Fault Contribution Current? \_\_\_\_\_ Instantaneous ☐ or RMS? ☐

Harmonics Characteristics: \_\_\_\_\_

Start-up power requirements: \_\_\_\_\_

**Generator Characteristic Data (for all rotating machines)**

Rotating Frequency: \_\_\_\_\_ (rpm) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

**Additional Information for Synchronous Generating Units**

Synchronous Reactance, X<sub>d</sub>: \_\_\_\_\_ (PU) Transient Reactance, X'<sub>d</sub>: \_\_\_\_\_ (PU)



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 74

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ (PU)      Neg Sequence Reactance,  $X_2$ : \_\_\_\_\_ (PU)  
Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ (PU)      kVA Base: \_\_\_\_\_  
Field Voltage: \_\_\_\_\_ (Volts)      Field Current: \_\_\_\_\_ (Amps)

Additional information for Induction Generating Units

Rotor Resistance,  $R_r$ : \_\_\_\_\_      Stator Resistance,  $R_s$ : \_\_\_\_\_  
Rotor Reactance,  $X_r$ : \_\_\_\_\_      Stator Reactance,  $X_s$ : \_\_\_\_\_  
Magnetizing Reactance,  $X_m$ : \_\_\_\_\_      Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_  
Exciting Current: \_\_\_\_\_      Temperature Rise: \_\_\_\_\_  
Frame Size: \_\_\_\_\_  
Total Rotating Inertia,  $H$ : \_\_\_\_\_      Per Unit on kVA Base: \_\_\_\_\_  
Reactive Power Required In Vars (No Load): \_\_\_\_\_  
Reactive Power Required In Vars (Full Load): \_\_\_\_\_

Additional information for Induction Generating Units that are started by motoring

Motoring Power: \_\_\_\_\_      Design Letter: \_\_\_\_\_

Additional information needed for Wind turbines:

Manufacturer's voltage flicker data (please provide source documents): \_\_\_\_\_

Estimated generation data (kW output) in ten (10) second increments based on actual or estimated wind data at the proposed site location (please provide source documents and analysis to support).

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 75

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Interconnection Equipment Technical Detail**

Date: \_\_\_\_\_

Will a transformer or a grounding bank be used between the generator and the point of interconnection? Yes ☐ No ☐

Will the transformer be provided by Interconnecting Customer? Yes ☐ No ☐

Transformer Data (if applicable, for all Interconnecting Customer-Owned Transformers including if a grounding bank is proposed, please provide data on each transformer or grounding bank):

Nameplate Rating: \_\_\_\_\_ (kVA) Single ☐ or Three ☐ Phase

Transformer Impedance: \_\_\_\_\_ (%) on a \_\_\_\_\_ kVA Base

Transformer Primary: \_\_\_\_\_ (Volts) Delta ☐ Wye ☐ Wye Grounded ☐ Other ☐

Transformer Secondary: \_\_\_\_\_ (Volts) Delta ☐ Wye ☐ Wye Grounded ☐ Other ☐

Transformer Fuse Data (if applicable, for Interconnecting Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_

Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Will a Neutral grounding reactor be installed? Yes ☐ No ☐, if yes, please provide the following:

Thermal current rating: \_\_\_\_\_ (amps)

Continuous current rating: \_\_\_\_\_ (amps), at a rated time of \_\_\_\_\_ (seconds)

Impedance: \_\_\_\_\_ (ohms)

Rated voltage: \_\_\_\_\_ (kV)

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Load Rating: \_\_\_\_\_ Interrupting Rating: \_\_\_\_\_ Trip Speed: \_\_\_\_\_  
(Amps) (Amps) (Cycles)

Interconnection Protective Relays (if applicable):

(If microprocessor-controlled)

List of Functions and Adjustable Set points for the protective equipment or software:

	Setpoint Function	Minimum	Maximum
1.	_____		
2.	_____		
3.	_____		
4.	_____		
5.	_____		
6.	_____		

(If discrete components)

(Enclose copy of any proposed Time Over-current Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 76

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Interconnection Equipment Technical Detail, page 2

Current Transformer Data (if applicable):

(Enclose copy of Manufacturer's Excitation & Ratio Correction Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Potential Transformer Data (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 77

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**General Technical Detail**

Date: \_\_\_\_\_

**E-mail a copy of the following to: [Distributed.Generation@nationalgrid.com](mailto:Distributed.Generation@nationalgrid.com)**

- Site electrical One-Line Diagram (relay settings should appear on one-line when applicable) showing the configuration of all generating facility equipment, current and potential circuits, and protection and control schemes with a stamp from a professional engineer (PE) registered in the state where the facility is located.
- Site plan that indicates the precise physical location of the following: a) proposed generating facility, b) external utility disconnect, c) all utility meters, d) location of proposed access to the facility, and, e) any public ways in the area (refer to the sample site plan on the National Grid website). If any of these locations change, provide an updated site plan prior to energizing the Facility
- Three-line diagram for non UL-1741 certified generator or multiple inverter projects, stamped by a Rhode Island Electrical Professional Engineer.
- Links or PDF copies of the specification sheets for the generator, protection equipment, transformer (s) and any other pieces of equipment deemed appropriate.

Mail the Interconnection Application (IA) fees check and first page of the signed IA to:

National Grid  
Attn: Distributed Generation  
40 Sylvan Rd (E3.571A)  
Waltham, MA 02451-1120

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 78

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**ATTACHMENT 2**  
**Certificate of Completion for Expedited/Standard Process**  
**Interconnections**

**Installation Information:**

☐ Check if owner-installed

Customer or Company Name (print): \_\_\_\_\_

Contact Person, if Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Primary): \_\_\_\_\_ Telephone (Secondary): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail (s): \_\_\_\_\_

Address of Facility (if different from above): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_

Electrical Contractor's Company or Name (print): \_\_\_\_\_

Electrician Name, if Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Primary): \_\_\_\_\_ Telephone (Secondary): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail (s): \_\_\_\_\_

License number: \_\_\_\_\_

Date of approval to install Facility granted by the Company: \_\_\_\_\_

Application ID number: \_\_\_\_\_

**Inspection:**

The system has been installed and inspected in compliance with the local Building/Electrical Code of:

\_\_\_\_\_  
(City/Town)

Signed/Date (Local/Federal Electrical Wiring  
Inspector, or attach signed electrical inspection): \_\_\_\_\_

Wiring Inspector Name (printed): \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

As a condition of interconnection you are required to send/fax a copy of this form along with a copy of the signed electrical permit to: [Distributed.Generation@nationalgrid.com](mailto:Distributed.Generation@nationalgrid.com)

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 79

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

### Exhibit D – Supplemental Review Agreement

This Agreement, dated \_\_\_\_\_, is entered into by and between \_\_\_\_\_ (“Interconnecting Customer”) and the Company, for the purpose of setting forth the terms, conditions and costs for conducting a Supplemental Review relative to the Expedited Process as defined in Section 1.0 and outlined in Section 3.0 of the Interconnection Tariff. This Supplemental Review pertains to Application Number \_\_\_\_ (the Interconnecting Customer’s application ID number).

If the Supplemental Review determines the requirements for processing the application through the Expedited Process including any System Modifications, then the modification requirements, reasoning, and costs for these modifications will be identified and included in an executable Interconnection Service Agreement sent to the Interconnecting Customer for execution. If the Supplemental Review does not determine the requirements, it will include a proposed Impact Study Agreement as part of the Standard Process which will include an estimate of the cost of the study.

The Interconnecting Customer agrees to provide, in a timely and complete manner, all additional information and technical data necessary for the Company to conduct the Supplemental Review not already provided in the Interconnecting Customer’s application.

All work pertaining to the Supplemental Review that is the subject of this Agreement will be approved and coordinated only through designated and authorized representatives of the Company and the Interconnecting Customer. Each party shall inform the other in writing of its designated and authorized representative, if different than what is in the application.

The Company shall perform the Supplemental Review for a fee not to exceed \$1,250. The Company anticipates that the Supplemental Review will cost \$\_\_\_\_\_. No work will be performed until payment is received.

Please indicate your acceptance of this Agreement by signing below.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 80

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Exhibit E – Feasibility Study Agreement**

This Agreement dated \_\_\_\_\_, is entered into by and between \_\_\_\_\_ (“Renewable Interconnecting Customer”) and the Company, for the purpose of setting forth the terms, conditions and costs for conducting a Feasibility Study relative to the Standard Process as defined in Section 1.0 and outlined in Section 3.0 of the Interconnection Tariff. This Feasibility Study pertains to Application Number \_\_\_\_\_ (the Interconnecting Customer’s application ID number).

1. The Renewable Interconnecting Customer agrees to provide, in a timely and complete manner, all additional information and technical data necessary for the Company to conduct the Feasibility Study not already provided in the Interconnecting Customer’s application.
2. All work pertaining to the Feasibility Study that is the subject of this Agreement will be approved and coordinated only through designated and authorized representatives of the Company and the Renewable Interconnecting Customer. Each party shall inform the other in writing of its designated and authorized representative, if different than what is in the application.
3. Where there are other potentially Affected Systems, and no single Party is in a position to prepare an Feasibility Study covering all potentially Affected Systems, the Company will coordinate but not be responsible for the timing of any additional studies required to determine the impact of the interconnection request on other potentially Affected Systems. The Renewable Interconnecting Customer will be directly responsible to the potentially Affected System operators for all costs of any additional studies required to evaluate the impact of the interconnection on the potentially Affected Systems provided, however, the Company may, in its sole discretion, elect to include the additional Affected System study costs in the Company’s cost estimates, in which case the Company will detail the separate Affected System study costs, and the Interconnecting Customer will pay such costs to the Company (and will be responsible for any and all actual costs thereof).. The Company will not proceed with this Feasibility Study without the Renewable Interconnecting Customer’s consent to have the other studies conducted.
4. Feasibility Study, together with any additional studies contemplated in Paragraph 3, shall form the basis for the Renewable Interconnecting Customer’s proposed use of the Company EPS and shall be furthermore utilized in obtaining necessary third-party approvals of any required facilities and requested distribution services. The Renewable Interconnecting Customer understands and acknowledges that any use of study results by the Interconnecting Customer or its agents, whether in preliminary or final form, prior to NEPOOL 18.4 approval, should such approval be required, is completely at the Renewable Interconnecting Customer’s risk.
5. The Feasibility Study fee of \$ \_\_\_\_\_, as per table 2 in Section 3.5 of the interconnection tariff is due in full prior to the execution of the Feasibility Study.
6. In the event this Agreement is terminated for any reason, the Company shall refund to the Renewable Interconnecting Customer the portion of the above fee or any subsequent payment to the Company by the Renewable Interconnecting Customer that the Company did not expend or commit in performing its obligations under this Agreement. Payments for work performed shall not be subject to refunding except in accordance with Paragraph 10 below.
7. Nothing in this Agreement shall be interpreted to give the Renewable Interconnecting Customer immediate rights to wheel over or interconnect with the Company’s EPS.
8. Except as precluded by the laws of the State of Rhode Island and the Providence Plantations, Renewable Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 81

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.

9. Notwithstanding the foregoing, the Renewable Interconnecting Customer hereby waives recourse against the Company and its Affiliates for, and releases the Company and its Affiliates from, any and all liabilities arising from or attributable to incomplete, inaccurate, or otherwise faulty information supplied by the Renewable Interconnecting Customer. Any construction estimate provide as part of the Feasibility Study cannot be relied upon the by applicant for the purposes of holding the Company liable or responsible for its accuracy as long as the Company has provided the estimate in good faith.
10. If either party materially breaches any of its covenants hereunder, the other party may terminate this Agreement by serving notice of same on the other party to this Agreement.
11. This agreement shall be construed and governed in accordance with the laws of the State of Rhode Island and the Providence Plantations.
12. All amendments to this Agreement shall be in written form executed by both Parties.
13. The terms and conditions of this Agreement shall be binding on the successors and assigns of either Party.
14. This Agreement will remain in effect for a period of up to two years from its effective date.
15. This Agreement may be terminated under the following conditions.
  - a) The Parties agree in writing to terminate the Agreement.
  - b) The Renewable Interconnecting Customer may terminate this agreement at any time by providing written notice to Company.
  - c) The Company may terminate this Agreement if the Renewable Interconnecting Customer either: (1) has not paid the fee or, (2) has not responded to requests for further information in accordance with provisions in the Interconnection Tariff.

Renewable Interconnecting Customer:

Narragansett Electric Company d/b/a National Grid:

Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____
Signature: _____	Signature: _____



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 82

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Exhibit F – Pre-Impact Study Review Agreement**

This Agreement dated \_\_\_\_\_, is entered into by and between \_\_\_\_\_ (“Interconnecting Customer”) and the Company, for the purpose of setting forth the terms, conditions and costs for conducting a Pre-Impact Study Review relative to the Standard Process as defined in Section 1.0 and outlined in Section 3.0 of the Interconnection Tariff. This Pre-Impact Study Review pertains to Application Number \_\_\_\_\_ (the Interconnecting Customer’s application ID number).

1. The Interconnecting Customer agrees to provide, in a timely and complete manner, all additional information and technical data necessary for the Company to conduct the Pre-Impact Study Review not already provided in the Interconnecting Customer’s application.
2. All work pertaining to the Pre-Impact Study Review that is the subject of this Agreement will be approved and coordinated only through designated and authorized representatives of the Company and the Interconnecting Customer. Each party shall inform the other in writing of its designated and authorized representative, if different than what is in the application.
3. Where there are other potentially Affected Systems, and no single Party is in a position to prepare a Pre-Impact Study Review covering all potentially Affected Systems, the Company will coordinate but not be responsible for the timing of any additional studies required to determine the impact of the interconnection request on other potentially Affected Systems. The Renewable Interconnecting Customer will be directly responsible to the potentially Affected System operators for all costs of any additional studies required to evaluate the impact of the interconnection on the potentially Affected Systems provided, however, the Company may, in its sole discretion, elect to include the additional Affected System study costs in the Company’s cost estimates, in which case the Company will detail the separate Affected System study costs, and the Interconnecting Customer will pay such costs to the Company (and will be responsible for any and all actual costs thereof). The Company will not proceed with this Pre-Impact Study Review without the Renewable Interconnecting Customer’s consent to have the other studies conducted.
4. Pre-Impact Study Review, together with the output of the required Impact Study or ISRDC contemplated in Paragraph 3, shall form the basis for the Renewable Interconnecting Customer’s proposed use of the Company EPS and shall be furthermore utilized in obtaining necessary third-party approvals of any required facilities and requested distribution services. The Renewable Interconnecting Customer understands and acknowledges that any use of study results by the Interconnecting Customer or its agents, whether in preliminary or final form, prior to NEPOOL 18.4 approval, should such approval be required, is completely at the Renewable Interconnecting Customer’s risk.
5. The Pre-Impact Study Review fee of \$ \_\_\_\_\_, as per Table 2 in Section 3.5 of the interconnection tariff is due in full prior to the execution of the Pre-Impact Study Review.
6. In the event this Agreement is terminated for any reason, the Company shall refund to the Interconnecting Customer the portion of the above fee or any subsequent payment to the Company by the Interconnecting Customer that the Company did not expend or commit in performing its obligations under this Agreement. Payments for work performed shall not be subject to refunding except in accordance with Paragraph 10 below.
7. Nothing in this Agreement shall be interpreted to give the Interconnecting Customer immediate rights to wheel over or interconnect with the Company’s EPS.
8. Except as precluded by the laws of the State of Rhode Island and the Providence Plantations, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 83

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

9. Notwithstanding the foregoing, the Interconnecting Customer hereby waives recourse against the Company and its Affiliates for, and releases the Company and its Affiliates from, any and all liabilities arising from or attributable to incomplete, inaccurate, or otherwise faulty information supplied by the Interconnecting Customer. Any construction estimate provided as part of the Pre-Impact Study Review cannot be relied upon by applicant for the purposes of holding the Company liable or responsible for its accuracy as long as the Company has provided the estimate in good faith.
10. If either party materially breaches any of its covenants hereunder, the other party may terminate this Agreement by serving notice of same on the other party to this Agreement.
11. This Agreement shall be construed and governed in accordance with the laws of the State of Rhode Island and the Providence Plantations.
12. All amendments to this Agreement shall be in written form executed by both Parties.
13. The terms and conditions of this Agreement shall be binding on the successors and assigns of either Party.
14. This Agreement will remain in effect for a period of up to two years from its effective date.
15. This Agreement may be terminated under the following conditions.
- a) The Parties agree in writing to terminate the Agreement.
  - b) The Interconnecting Customer may terminate this Agreement at any time by providing written notice to Company.
  - c) The Company may terminate this Agreement if the Interconnecting Customer either:  
(1) has not paid the fee or, (2) has not responded to requests for further information in accordance with provisions in the Interconnection Tariff.

Interconnecting Customer: \_\_\_\_\_ Narragansett Electric Company d/b/a National Grid:

Name: \_\_\_\_\_ Name: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Signature: \_\_\_\_\_

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 84

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

## Exhibit ~~GF~~ – Impact Study or ISRDG Agreement

This Agreement, dated \_\_\_\_\_, is entered into by and between \_\_\_\_\_  
("Interconnecting Customer") and the Company, for the purpose of setting forth the terms, conditions and costs for  
conducting an Impact Study relative to the Standard Process as defined in Section 1.0 and outlined in Section 3.0 of the  
Interconnection Tariff. This Impact Study pertains to Application Number \_\_\_\_\_ (the  
Interconnecting Customer's application ID number).

1. The Interconnecting Customer agrees to provide, in a timely and complete manner, all additional information and technical data necessary for the Company to conduct the Impact Study not already provided in the Interconnecting Customer's application.
2. All work pertaining to the Impact Study that is the subject of this Agreement will be approved and coordinated only through designated and authorized representatives of the Company and the Interconnecting Customer. Each party shall inform the other in writing of its designated and authorized representative, if different than what is in the application.
3. Where there are other potentially Affected Systems, and no single Party is in a position to prepare an Impact Study covering all potentially Affected Systems, the Company will coordinate but not be responsible for the timing of any additional studies required to determine the impact of the interconnection request on other potentially Affected Systems. The Interconnecting Customer will be directly responsible to the potentially Affected System operators for all costs of any additional studies required to evaluate the impact of the interconnection on the potentially Affected Systems provided, however, the Company may, in its sole discretion, elect to include the additional Affected System study costs in the Company's cost estimates, in which case the Company will detail the separate Affected System study costs, and the Interconnecting Customer will pay such costs to the Company (and will be responsible for any and all actual costs thereof). The Company will not proceed with this Impact Study without the Interconnecting Customer's consent to have the other studies conducted.
4. If the Company determines, in accordance with Good Utility Practice, that the System Modifications to the Company EPS are not substantial, the Impact Study will determine the scope and cost of the modifications and will, upon Interconnecting Customer's request, provide an executable ISA. If the Company determines, in accordance with Good Utility Practice, that the System Modifications to the Company EPS are substantial, and the Company is unable to provide an executable ISA, the Impact Study will produce an estimate for the known System Modification costs (within ±25%) and a Detailed Study Agreement with its estimated cost.
5. Impact Study, together with any additional studies contemplated in Paragraph 3, shall form the basis for the Interconnecting Customer's proposed use of the Company EPS and shall be furthermore utilized in obtaining necessary third-party approvals of any required facilities and requested distribution services. The Interconnecting Customer understands and acknowledges that any use of study results by the Interconnecting Customer or its agents, whether in preliminary or final form, prior to ISO Reliability Committee approval, should such approval be required, is completely at the Interconnecting Customer's risk.
6. The Impact Study fee of \$\_\_\_\_\_ (except as noted below) is due in full prior to the execution of the Impact Study. For a Renewable Interconnecting Customer the ISRDG Study fee is as per Table 2 in Section 3.5 of the interconnection tariff.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 85

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

7. Final Accounting. If the Customer executes an ISA, then a final accounting of the costs collected under this study agreement shall be performed in accordance with the terms of the ISA. If the Interconnecting Customer does not execute an ISA, the Company, within ninety (90) business days after completion of the study and all Company work orders have been closed, shall provide Interconnecting Customer with a final accounting report of any difference between (a) Interconnecting Customer's cost responsibility under this agreement, and (b) Interconnecting Customer's previous aggregate payments to the Company for such study. Costs that are statutorily- based shall not be subject to final accounting or reconciliation under this provision (e.g., statutorily set study fees for the ISRDG), but may be reconciled at any time only if the costs exceed the statutory fee and the Company seeks to collect actual costs in accordance with the applicable statute. To the extent that Interconnecting Customer's cost responsibility in this agreement exceeds Interconnecting Customer's previous aggregate payments, the Company shall invoice Interconnecting Customer and Interconnecting Customer shall make payment to the Company within forty-five (45) days. To the extent that Interconnecting Customer's previous aggregate payments exceed Interconnecting Customer's cost responsibility under this agreement, the Company shall refund to Interconnecting Customer an amount equal to the difference within forty-five (45) days of the provision of such final accounting report.
8. In the event this Agreement is terminated for any reason, the Company shall refund to the Interconnecting Customer the portion of the above fee or any subsequent payment to the Company by the Interconnecting Customer that the Company did not expend or commit in performing its obligations under this Agreement. Payments for work performed shall not be subject to refunding except in accordance with Paragraph 16 below.
9. Nothing in this Agreement shall be interpreted to give the Interconnecting Customer immediate rights to wheel over or interconnect with the Company's EPS.
10. Except as precluded by the laws of the State of Rhode Island and the Providence Plantations, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.  
  
Notwithstanding the foregoing, the Interconnecting Customer hereby waives recourse against the Company and its Affiliates for, and releases the Company and its Affiliates from, any and all liabilities arising from or attributable to incomplete, inaccurate, or otherwise faulty information supplied by the Interconnecting Customer. Moreover, with respect to an ISRDG provided to a Renewable Interconnecting Customer, the Company may not be held liable or responsible if the actual costs exceed the estimate as long as the estimate was provided in good faith and the interconnection was implemented prudently the Company.
11. If either party materially breaches any of its covenants hereunder, the other party may terminate this Agreement by serving notice of same on the other party to this Agreement.
12. This agreement shall be construed and governed in accordance with the laws of the State of Rhode Island and the Providence Plantations.
13. All amendments to this Agreement shall be in written form executed by both Parties.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 86

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

14. The terms and conditions of this Agreement shall be binding on the successors and assigns of either Party.
15. This Agreement will remain in effect for a period of up to two years from its effective date.
16. This Agreement may be terminated under the following conditions.
  - a) The Parties agree in writing to terminate the Agreement.
  - b) The Interconnecting Customer may terminate this agreement at any time by providing written notice to Company.
  - c) The Company may terminate this Agreement if the Interconnecting Customer either: (1) has not paid the fee or, (2) has not responded to requests for further information in accordance with provisions in the Interconnection Tariff.

Interconnecting Customer:

Narragansett Electric Company d/b/a National Grid:

Name:	_____	Name:	_____
Title:	_____	Title:	_____
Date:	_____	Date:	_____
Signature:	_____	Signature:	_____

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 87

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Exhibit ~~HG~~ – Detailed Study Agreement**

This Agreement, dated \_\_\_\_\_, is entered into by and between \_\_\_\_\_ (“Interconnecting Customer”) and the Company, for the purpose of setting forth the terms, conditions and costs for conducting a Detailed Study relative to the Standard process as defined in Section 1 and outlined in Section 3 of the Interconnection Tariff. This Detailed Study pertains to Application Number \_\_\_\_\_ (the Interconnecting Customer’s application ID number).

1. The Interconnecting Customer agrees to provide, in a timely and complete manner, all additional information and technical data necessary for the Company to conduct the Detailed Study not already provided in the Interconnecting Customer’s application.
2. All work pertaining to the Detailed Study that is the subject of this Agreement will be approved and coordinated only through designated and authorized representatives of the Company and the Interconnecting Customer. Each party shall inform the other in writing of its designated and authorized representative, if different than what is in the application.
3. Where there are other Affected Systems identified by the Impact Studies, and no single Party is in a position to prepare a Detailed Study covering all Affected Systems, the Company will coordinate but not be responsible for the timing of any additional studies required to determine the System Modifications of the interconnection request on other Affected Systems. The Interconnecting Customer will be directly responsible to the Affected System operators for all costs of any additional studies required to evaluate the impact of the interconnection on the Affected Systems provided, however, the Company may, in its sole discretion, elect to include the additional Affected System study costs in the Company’s cost estimates, in which case the Company will detail the separate Affected System study costs, and the Interconnecting Customer will pay such costs to the Company (and will be responsible for any and all actual costs thereof). The Company will not proceed with this Detailed Study without the Interconnecting Customer’s consent to have the other studies conducted.
4. The Company will provide an estimate of the costs of the System Modifications required as a result of the Detailed Study.
5. The Detailed Study, together with any additional studies contemplated in Paragraph 3, shall form the basis for the Interconnecting Customer’s proposed use of the Company EPS and shall be furthermore utilized in obtaining necessary third-party approvals of any required facilities and requested distribution services. The Interconnecting Customer understands and acknowledges that any use of study results by the Interconnecting Customer or its agents, whether in preliminary or final form, prior to ISO-NE Reliability Committee approval, should such approval be required, is completely at the Interconnecting Customer’s risk.
6. The Detailed Study fee of \$ \_\_\_\_\_ (except as noted below) is due in full prior to the execution of the Detailed Study. If the anticipated cost exceeds \$25,000, the Interconnecting Customer is eligible for a payment plan, including a payment and construction schedule with milestones for both parties. At the request of the Interconnecting Customer, the Company will break the costs into phases in which the costs will be collected prior to Company expenditures for each phase of the study. The payment plan will be attached as an exhibit to the Detailed Study Agreement.
7. The Company will, in writing, advise the Interconnecting Customer in advance of any cost increase for work to be performed up to a total amount of increase of 10% only. All costs that exceed the 10% increase cap will be borne solely by the Company. Any such changes to the Company’s costs for the work shall be subject to the Interconnecting Customer’s consent. The Interconnecting Customer shall, within thirty (30) days of the Company’s notice of increase, authorize such increase and make payment in the amount up to the 10% increase cap, or the Company will suspend the work and the corresponding agreement will terminate.
8. Final Accounting. If the Customer executes an ISA, then a final accounting of the costs collected under this study agreement shall be performed in accordance with the terms of the ISA. If the Interconnecting Customer does not execute an ISA, the Company within ninety (90) business days

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 88

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

after completion of the study and all Company work orders have been closed, shall provide Interconnecting Customer with a final accounting report that includes a comparable level of detail and in similar categories as the cost estimate initially provided by the Company, specifying ~~of~~ any difference between (a) Interconnecting Customer's cost responsibility under this agreement, and (b) Interconnecting Customer's previous aggregate payments to the Company for such study. Costs that are statutorily-based shall not be subject to final accounting or reconciliation under this provision, but may be reconciled at any time only if the costs exceed the statutory fee and the Company seeks to collect actual costs in accordance with the applicable statute. To the extent that Interconnecting Customer's cost responsibility in this agreement exceeds Interconnecting Customer's previous aggregate payments, the Company shall invoice Interconnecting Customer and Interconnecting Customer shall make payment to the Company within forty-five (45) days. To the extent that Interconnecting Customer's previous aggregate payments exceed Interconnecting Customer's cost responsibility under this agreement, the Company shall refund to Interconnecting Customer an amount equal to the difference within forty-five (45) days of the provision of such final accounting report.

9. In the event this Agreement is terminated for any reason, the Company shall refund to the Interconnecting Customer the portion of the above fee or any subsequent payment to the Company by the Interconnecting Customer that the Company did not expend or commit in performing its obligations under this Agreement. Payments for work performed shall not be subject to refunding except in accordance with Paragraph 16 below.
10. Nothing in this Agreement shall be interpreted to give the Interconnecting Customer immediate rights to wheel over or interconnect with the Company's EPS.
11. Except as precluded by the laws of the State of Rhode Island and the Providence Plantations, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.  
  
Notwithstanding the foregoing, the Interconnecting Customer hereby waives recourse against the Company and its Affiliates for, and releases the Company and its Affiliates from, any and all liabilities arising from or attributable to information supplied by the Interconnecting Customer.
12. This agreement shall be construed and governed in accordance with the laws of the State of Rhode Island and the Providence Plantations.
13. All amendments to this Agreement shall be in written form executed by both Parties.
14. The terms and conditions of this Agreement shall be binding on the successors and assigns of either Party.
15. This Agreement will remain in effect for a period of up to two years from its effective date.
16. This Agreement may be terminated under the following conditions.
  - a) The Parties agree in writing to terminate the Agreement.
  - b) The Interconnecting Customer may terminate this agreement at any time by providing written notice to Company.
  - c) The Company may terminate this Agreement if the Interconnecting Customer either: (1) has not paid the fee or, (2) has not responded to requests for further information in accordance with provisions in the Interconnection Tariff.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 89

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

Interconnecting Customer:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Narragansett Electric Company d/b/a National Grid:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 90

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Exhibit ~~I-H~~ – Interconnection Service Agreement**

- 1. Parties.** This Interconnection Service Agreement (“Agreement”), dated as of \_\_\_\_\_ (“Effective Date”) is entered into, by and between \_\_\_\_\_, a Rhode Island corporation with a principal place of business at \_\_\_\_\_ (hereinafter referred to as the “Company”), and, \_\_\_\_\_ a \_\_\_\_\_ corporation with a principal place of business at \_\_\_\_\_ (“Interconnecting Customer”). (The Company and Interconnecting Customer are collectively referred to as the “Parties”). Terms used herein without definition shall have the meanings set forth in Section 1.2 of the Interconnection Tariff which is hereby incorporated by reference.
- 2. Basic Understandings.** This Agreement provides for parallel operation of an Interconnecting Customer’s Facility with the Company EPS to be installed and operated by the Interconnecting Customer at: \_\_\_\_\_ (Facility name, address, and end-use customer account number, if applicable). A description of the Facility is located in Attachment 2. If the Interconnecting Customer is not the Customer, an Agreement between the Company and the Company’s Retail Customer, attached as Exhibit ~~I-J~~ to the Interconnection Tariff, must be signed and included as an Attachment to this Agreement.

The Interconnecting Customer has the right to operate its Facility in parallel with the Company EPS immediately upon successful completion of the protective relays testing as witnessed by the Company and receipt of written notice from the Company that interconnection with the Company EPS is authorized (“Authorization Date”).
- 3. Term.** This Agreement shall become effective as of the Effective Date. The Agreement shall continue in full force and effect until terminated pursuant to Section 4 of this Agreement.
- 4. Termination.**
  - 4.1** This Agreement may be terminated under the following conditions.
    - 4.1.1** The Parties agree in writing to terminate the Agreement.
    - 4.1.2** The Interconnecting Customer may terminate this agreement at any time by providing sixty (60) days written notice to Company.
    - 4.1.3** The Company may terminate this Agreement upon the occurrence of an Event of Default by the Interconnecting Customer as provided in Section 18 of this Agreement.
    - 4.1.4** The Company may terminate this Agreement if the Interconnecting Customer either: (1) fails to energize the Facility within 12 months of the Authorization Date; or, (2) permanently abandons the Facility. Failure to operate the Facility for any consecutive 12 month period after the Authorization Date shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.
    - 4.1.5** The Company, upon 30 days notice, may terminate this Agreement if there are any changes in Commission regulations or state law that have a material adverse effect on the Company’s ability to perform its obligations under the terms of this Agreement.
  - 4.2 Survival of Obligations.** The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination. Sections 5, 10, 12, 13, and 25 as it relates to disputes pending or for wrongful termination of this Agreement shall survive the termination of this Agreement.
  - 4.3 Related Agreements.** Any agreement attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing.
- 5. General Payment Terms.** The Interconnecting Customer shall be responsible for the System Modification costs and payment terms identified in Attachment 3 of this Agreement and any approved cost increases

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 91The Narragansett Electric Company  
Standards for Connecting Distributed Generation

pursuant to the terms of the Interconnection Tariff. If the system modifications exceed \$25,000, Attachment 3 will include a payment and construction schedule for both parties. Interconnecting Customers shall be directly responsible to any Affected System operator for the costs of any system modifications necessary to the Affected Systems.

**5.1 Cost or Fee Adjustment Procedures.** The Company will, in writing, advise the Interconnecting Customer in advance of any expected cost increase for work to be performed up to a total amount of increase of 10% only. Any such changes to the Company's costs for the work shall be subject to the Interconnecting Customer's consent. The Interconnecting Customer shall, within thirty (30) days of the Company's notice of increase, authorize such increase and make payment in the amount up to the 10% increase cap, or the Company will suspend the work and the corresponding agreement will terminate.

**5.2 Final Accounting.** The Company within ninety (90) business days after completion of the construction and installation of the System Modifications described in an attached exhibit to the Interconnection Service Agreement and all Company work orders have been closed, shall provide Interconnecting Customer with a final accounting report of any difference between the (a) Interconnecting Customer's cost responsibility under the Interconnection Service Agreement for the actual cost of such System Modifications and for any Impact or Detailed Study performed by the Company, , and (b) Interconnecting Customer's previous aggregate payments to the Company for such System Modifications and studies. Costs that are statutorily-based shall not be subject to either a final accounting or reconciliation under this provision (e.g. statutorily set study fees for the ISRDG), but may be reconciled at any time only if the costs exceed the statutory fee, and the Company seeks to collect actual costs in accordance with the applicable statute. To the extent that Interconnecting Customer's cost responsibility in the Interconnection Service Agreement for the System Modifications and in the Impact and/or Detailed Study Agreements (as applicable) for the studies performed by the Company exceeds Interconnecting Customer's previous aggregate payments, the Company shall invoice Interconnecting Customer and Interconnecting Customer shall make payment to the Company within 45 days. To the extent that Interconnecting Customer's previous aggregate payments exceed Interconnecting Customer's cost responsibility under this applicable agreement, the Company shall refund to Interconnecting Customer an amount equal to the difference within forty five (45) days of the provision of such final accounting report.

## 6. Operating Requirements

**6.1 General Operating Requirements.** Interconnecting Customer shall operate and maintain the Facility in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Company's Interconnection Tariff. The Interconnecting Customer will continue to comply with all applicable laws and requirements after interconnection has occurred. In the event the Company has reason to believe that the Interconnecting Customer's installation may be the source of problems on the Company EPS, the Company has the right to install monitoring equipment at a mutually agreed upon location to determine the source of the problems. If the Facility is determined to be the source of the problems, the Company may require disconnection as outlined in Section 7.0 of the Interconnection Tariff. The cost of this testing will be borne by the Company unless the Company demonstrates that the problem or problems are caused by the Facility or if the test was performed at the request of the Interconnecting Customer.

**6.2 No Adverse Effects; Non-interference.** Company shall notify Interconnecting Customer if there is evidence that the operation of the Facility could cause disruption or deterioration of service to other Customers served from the same Company EPS or if operation of the Facility could cause damage to Company EPS or Affected Systems. The deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE Standard 1547-2003, as well as voltage fluctuations caused by large step changes in loading at the Facility. Each Party will notify the other of any emergency or hazardous condition or occurrence with its equipment or facilities which could affect safe operation of the other Party's equipment or facilities. Each Party shall use reasonable efforts to provide the other Party with advance notice of such conditions.

The Company will operate the EPS in such a manner so as to not unreasonably interfere with the operation of the Facility. The Interconnecting Customer will protect itself from normal disturbances propagating

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 92

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

through the Company EPS, and such normal disturbances shall not constitute unreasonable interference unless the Company has deviated from Good Utility Practice. Examples of such disturbances could be, but are not limited to, single-phasing events, voltage sags from remote faults on the Company EPS, and outages on the Company EPS. If the Interconnecting Customer demonstrates that the Company EPS is adversely affecting the operation of the Facility and if the adverse effect is a result of a Company deviation from Good Utility Practice, the Company shall take appropriate action to eliminate the adverse effect.

**6.3 Safe Operations and Maintenance.** Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facility or facilities that it now or hereafter may own unless otherwise specified in this Agreement. Each Party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on their respective side of the PCC. The Company and the Interconnecting Customer shall each provide equipment on its respective side of the PCC that adequately protects the Company's EPS, personnel, and other persons from damage and injury.

**6.4 Access.** The Company shall have access to the disconnect switch of the Facility at all times.

**6.4.1 Company and Interconnecting Customer Representatives.** Each Party shall provide and update as necessary the telephone number that can be used at all times to allow either Party to report an emergency.

**6.4.2 Company Right to Access Company-Owned Facilities and Equipment.** If necessary for the purposes of the Interconnection Tariff and in the manner it describes, the Interconnecting Customer shall allow the Company access to the Company's equipment and the Company's facilities located on the Interconnecting Customer's or Customer's premises. To the extent that the Interconnecting Customer does not own all or any part of the property on which the Company is required to locate its equipment or facilities to serve the Interconnecting Customer under the Interconnection Tariff, the Interconnecting Customer shall secure and provide in favor of the Company the necessary rights to obtain access to such equipment or facilities, including easements if the circumstances so require.

**6.4.3 Right to Review Information.** The Company shall have the right to review and obtain copies of Interconnecting Customer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Interconnecting Customer's Facility or its interconnection with the Company EPS. This information will be treated as customer-confidential and only used for the purposes of meeting the requirements of Section 4.2.4 in the Interconnection Tariff.

## 7. Disconnection

### 7.1 Temporary Disconnection

**7.1.1 Emergency Conditions.** Company shall have the right to immediately and temporarily disconnect the Facility without prior notification in cases where, in the reasonable judgment of Company, continuance of such service to Interconnecting Customer is imminently likely to (i) endanger persons or damage property or (ii) cause a material adverse effect on the integrity or security of, or damage to, Company EPS or to the electric systems of others to which the Company EPS is directly connected. Company shall notify Interconnecting Customer promptly of the emergency condition. Interconnecting Customer shall notify Company promptly when it becomes aware of an emergency condition that affects the Facility that may reasonably be expected to affect the Company EPS. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, or the expected effect on the operation of both Parties' facilities and operations, its anticipated duration and the necessary corrective action.

**7.1.2 Routine Maintenance, Construction and Repair.** Company shall have the right to disconnect the Facility from the Company EPS when necessary for routine maintenance, construction and repairs on the Company EPS. The Company shall provide the Interconnecting Customer with a minimum of seven calendar days planned outage notification consistent with the Company's planned outage notification protocols. If the Interconnecting Customer requests disconnection by the Company at the

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 93

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

PCC, the Interconnecting Customer will provide a minimum of seven days notice to the Company. Any additional notification requirements will be specified by mutual agreement in the Interconnection Service Agreement. Company shall make an effort to schedule such curtailment or temporary disconnection with Interconnecting Customer.

**7.1.3 Forced Outages.** During any forced outage, Company shall have the right to suspend interconnection service to effect immediate repairs on the Company EPS; provided, however, Company shall use reasonable efforts to provide the Interconnecting Customer with prior notice. Where circumstances do not permit such prior notice to Interconnecting Customer, Company may interrupt Interconnection Service and disconnect the Facility from the Company EPS without such notice.

**7.1.4 Non-Emergency Adverse Operating Effects.** The Company may disconnect the Facility if the Facility is having an adverse operating effect on the Company EPS or other customers that is not an emergency, and the Interconnecting Customer fails to correct such adverse operating effect after written notice has been provided and a maximum of 45 days to correct such adverse operating effect has elapsed.

**7.1.5 Modification of the Facility.** Company shall notify Interconnecting Customer if there is evidence of a material modification to the Facility and shall have the right to immediately suspend interconnection service in cases where such material modification has been implemented without prior written authorization from the Company.

**7.1.6 Re-connection.** Any curtailment, reduction or disconnection shall continue only for so long as reasonably necessary. The Interconnecting Customer and the Company shall cooperate with each other to restore the Facility and the Company EPS, respectively, to their normal operating state as soon as reasonably practicable following the cessation or remedy of the event that led to the temporary disconnection.

**7.2 Permanent Disconnection.** The Interconnecting Customer has the right to permanently disconnect at any time with 30 days written notice to the Company.

**7.2.1** The Company may permanently disconnect the Facility upon termination of the Interconnection Service Agreement in accordance with the terms thereof.

- 8. Metering.** Metering of the output from the Facility shall be conducted pursuant to the terms of the Interconnection Tariff.
- 9. Assignment.** Except as provided herein, Interconnecting Customer shall not voluntarily assign its rights or obligations, in whole or in part, under this Agreement without Company's written consent. Any assignment Interconnecting Customer purports to make without Company's written consent shall not be valid. Company shall not unreasonably withhold or delay its consent to Interconnecting Customer's assignment of this Agreement. Notwithstanding the above, Company's consent will not be required for any assignment made by Interconnecting Customer to an Affiliate or as collateral security in connection with a financing transaction. In all events, the Interconnecting Customer will not be relieved of its obligations under this Agreement unless, and until the assignee assumes in writing all obligations of this Agreement and notifies the Company of such assumption.
- 10. Confidentiality.** Company shall maintain confidentiality of all Interconnecting Customer confidential and proprietary information except as otherwise required by applicable laws and regulations, the Interconnection Tariff, or as approved by the Interconnecting Customer in the Simplified or Expedited/Standard Application form or otherwise.
- 11. Insurance Requirements.**
  - 11.1 General Liability.**

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 94

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

- 11.1(a) In connection with Interconnecting Customer's performance of its duties and obligations under the Interconnection Service Agreement, Interconnecting Customer shall maintain, during the term of the Agreement, general liability insurance with a combined single limit of not less than:
- i. Five million dollars (\$5,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than five (5) MW.
  - ii. Two million dollars (\$2,000,000) for each occurrence and five million dollars (\$5,000,000) in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one (1) MW and less than or equal to five (5) MW;
  - iii. One million dollars (\$1,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one hundred (100) kW and less than or equal to one (1) MW;
  - iv. Five hundred thousand dollars (\$500,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than ten (10) kW and less than or equal to one hundred (100) kW, except for eligible net metered customers which are exempt from insurance requirements.
- 11.1(b) No insurance is required for a Facility with a Gross Nameplate Rating less than or equal to 50 kW that is eligible for net metering. However, the Company recommends that the Interconnecting Customer obtain adequate insurance to cover potential liabilities.
- 11.1(c) Any combination of General Liability and Umbrella/Excess Liability policy limits can be used to satisfy the limit requirements stated above.
- 11.1(d) The general liability insurance required to be purchased in this Section may be purchased for the direct benefit of the Company and shall respond to third party claims asserted against the Company (hereinafter known as "Owners Protective Liability"). Should this option be chosen, the requirement of Section 11.2(a) will not apply but the Owners Protective Liability policy will be purchased for the direct benefit of the Company and the Company will be designated as the primary and "Named Insured" under the policy.
- 11.1(e) The insurance hereunder is intended to provide coverage for the Company solely with respect to claims made by third parties against the Company.
- 11.1(f) In the event the State of Rhode Island and the Providence Plantations, or any other governmental subdivision thereof subject to the claims limits of R.I.G.L. Chapter 9-31 (hereinafter referred to as the "Governmental Entity") is the Interconnecting Customer, any insurance maintained by the Governmental Entity shall contain an endorsement that strictly prohibits the applicable insurance company from interposing the claims limits of R.I.G.L. Chapter 9-31 as a defense in either the adjustment of any claim, or in the defense of any lawsuit directly asserted against the insurer by the Company. Nothing herein is intended to constitute a waiver or indication of an intent to waive the protections of R.I.G.L. Chapter 9-31 by the Governmental Entity.
- 11.2 Insurer Requirements and Endorsements.** All required insurance shall be carried by reputable insurers qualified to underwrite insurance in RI having a Best Rating of "A-". In addition, all insurance shall, (a) include Company as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that Company shall not incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days' written notice to Company prior to cancellation, termination, or material change of such insurance; provided that to the extent the Interconnecting Customer is satisfying the requirements of subpart (e) of this paragraph by means of a presently existing insurance policy, the Interconnecting Customer shall only be required to make good faith efforts to satisfy that requirement and will assume the responsibility for notifying the Company as required above.

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 95

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**11.3 Evidence of Insurance.** Evidence of the insurance required shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Interconnecting Customer.

The Interconnecting Customer is responsible for providing the Company with evidence of insurance in compliance with the Interconnection Tariff on an annual basis.

Prior to the Company commencing work on System Modifications and annually thereafter, the Interconnecting Customer shall have its insurer furnish to the Company certificates of insurance evidencing the insurance coverage required above. The Interconnecting Customer shall notify and send to the Company a certificate of insurance for any policy written on a "claims-made" basis. The Interconnecting Customer will maintain extended reporting coverage for three years on all policies written on a "claims-made" basis.

In the event that an Owners Protective Liability policy is provided, the original policy shall be provided to the Company.

**11.4** All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued, updated and submitted yearly to the following:

National Grid  
Attention: Risk Management  
300 Erie Blvd West  
Syracuse, NY 13202

**12. Indemnification.** Except as precluded by the laws of the State of Rhode Island and the Providence Plantations, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of or are in any manner connected with the performance of this Agreement by that Party except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the Party seeking indemnification.

**13. Limitation of Liability.** Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including court costs and reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage or liability actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.

**14. Amendments and Modifications.** No amendment or modification of this Agreement shall be binding unless in writing and duly executed by both Parties.

**15. Permits and Approvals.** Interconnecting Customer shall obtain all environmental and other permits lawfully required by governmental authorities for the construction and operation of the Facility. Prior to the construction of System Modifications the interconnecting customer will notify the Company that it has initiated the permitting process. Prior to the commercial operation of the Facility the Customer will notify the Company that it has obtained all permits necessary. Upon request the Interconnecting Customer shall provide copies of one or more of the necessary permits to the Company.

**16. Force Majeure.** For purposes of this Agreement, "Force Majeure Event" means any event:

- a. that is beyond the reasonable control of the affected Party; and

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 96

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

- b. that the affected Party is unable to prevent or provide against by exercising commercially reasonable efforts, including the following events or circumstances, but only to the extent they satisfy the preceding requirements: acts of war or terrorism, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lighting, storms, and other natural calamities; explosions or fire; strikes, work stoppages, or labor disputes; embargoes; and sabotage. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing, and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party will specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party will be entitled to suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of reasonable efforts. The affected Party will use reasonable efforts to resume its performance as soon as possible. In no event will the unavailability or inability to obtain funds constitute a Force Majeure Event.

**17. Notices.**

- 17.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given on the date actually delivered in person or five (5) business days after being sent by certified mail, e-mail or fax with confirmation of receipt and original follow-up by mail, or any nationally-recognized delivery service with proof of delivery, postage prepaid, to the person specified below:

If to Company: National Grid  
Attention: \_\_\_\_\_  
Distributed Generation  
40 Sylvan Road  
Waltham, MA 02451-1120  
  
Phone: \_\_\_\_\_  
E-mail: Distributed.Generation@nationalgrid.com

If to Interconnecting Customer: Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
Phone: \_\_\_\_\_  
E-mail: \_\_\_\_\_

- 17.2 A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 17.1.

- 17.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

**18. Default and Remedies**

- 18.1 Defaults. Any one of the following shall constitute "An Event of Default."

- (i) One of the Parties shall fail to pay any undisputed bill for charges incurred under this Agreement or other amounts which one Party owes the other Party as and when due, and such failure shall continue for a period of thirty (30) days after written notice of nonpayment from the affected Party to the defaulting Party, or
- (ii) One of the Parties fails to comply with any other provision of this Agreement or breaches any representation or warranty in any material respect and fails to cure or remedy that default or breach

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 97

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

within sixty (60) days after notice and written demand by the affected Party to cure the same or such longer period reasonably required to cure (not to exceed an additional 90 days unless otherwise mutually agreed upon), provided that the defaulting Party diligently continues to cure until such failure is fully cured.

**18.2 Remedies.** Upon the occurrence of an Event of Default, the affected Party may at its option, in addition to any remedies available under any other provision herein, do any, or any combination, as appropriate, of the following:

- a. Continue to perform and enforce this Agreement;
- b. Recover damages from the defaulting Party except as limited by this Agreement;
- c. By written notice to the defaulting Party terminate this Agreement;
- d. Pursue any other remedies it may have under this Agreement or under applicable law or in equity.

**19. Entire Agreement.** This Agreement, including any attachments or appendices, is entered into pursuant to the Interconnection Tariff. Together the Agreement and the Interconnection Tariff represent the entire understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each Party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the Company's Interconnection Tariff.

**20. Supercedence.** In the event of a conflict between this Agreement, the Interconnection Tariff, or the terms of any other tariff, Exhibit or Attachment incorporated by reference, the terms of the Interconnection Tariff, as the same may be amended from time to time, shall control. In the event that the Company files a revised tariff related to interconnection for Commission approval after the effective date of this Agreement, the Company shall, not later than the date of such filing, notify the signatories of this Agreement and provide them a copy of said filing.

**21. Governing Law.** This Agreement shall be interpreted, governed, and construed under the laws of the State of Rhode Island and the Providence Plantations without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.

**22. Non-waiver.** None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

**23. Counterparts.** This Agreement may be signed in counterparts.

**24. No Third Party Beneficiaries.** This Agreement is made solely for the benefit of the Parties hereto. Nothing in the Agreement shall be construed to create any rights in or duty to, or standard of care with respect to, or any liability to, any person not a party to this Agreement.

**25. Dispute Resolution.** Unless otherwise agreed by the Parties, all disputes arising under this Agreement shall be resolved pursuant to the Dispute Resolution Process set forth in the Interconnection Tariff.

**26. Severability.** If any clause, provision, or section of this Agreement is ruled invalid by any court of competent jurisdiction, the invalidity of such clause, provision, or section, shall not affect any of the remaining provisions herein.



R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 98

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**27. Signatures.** IN WITNESS WHEREOF, the Parties hereto have caused two (2) originals of this Agreement to be executed under seal by their duly authorized representatives.

Interconnecting Customer	Narragansett Electric Company d/b/a National Grid
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____
Signature: _____	Signature: _____

The following attachments would be developed and included as appropriate for each specific Interconnection Service Agreement:

- Attachment 1: Description of Facilities, including demarcation of Point of Common Coupling
- Attachment 2: Description of System Modifications
- Attachment 3: Costs of System Modifications and Payment Terms
- Attachment 4: Special Operating Requirements, if any
- Attachment 5: Agreement between the Company and the Company's Retail Delivery Service Customer (to be signed by the Company's retail delivery service customer where DG installation and interconnection will be placed, when the retail delivery service customer is not the owner and/or operator of the distributed generation facility -- see Exhibit ~~I-J~~ of the Interconnection Tariff)

R.I.P.U.C. No. 21802244  
Canceling R.I.P.U.C. No. 21632180  
Sheet 99

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

**Exhibit JJ – Agreement between the Company and the Company’s Retail Delivery Service Customer**

(Note: this Agreement is to be signed by the Company’s retail delivery service customer where the distributed generation installation and interconnection will be placed, when the retail delivery service customer is not the owner and/or operator of the distributed generation facility.)

**Parties.** This Agreement between the Company and the Company’s Retail Delivery Service Customer (“Agreement”), dated as of \_\_\_\_\_ (“Effective Date” of this Agreement) is entered into, by and between \_\_\_\_\_, a Rhode Island corporation with a principal place of business at \_\_\_\_\_ (hereinafter referred to as the “Company”), and \_\_\_\_\_, a \_\_\_\_\_ corporation with a principal place of business at \_\_\_\_\_ (“Customer”). (The Company and Customer are collectively referred to as the “Parties”). Terms used herein without definition shall have the meanings set forth in Section 1.2 of the Interconnection Tariff, which is hereby incorporated by reference.

1. SCOPE, PURPOSE, AND RELATED AGREEMENTS

This Agreement, in conjunction with the Interconnection Service Agreement identified in Section 2.2, allows the Interconnecting Customer (as identified in Section 2.3) to utilize Customer’s electrical facilities to interconnect and operate the Facility in Parallel with Company’s EPS. The purpose of the Facility is to serve the Customer’s electrical loads at the location identified in Section 2.1

2. SUMMARY AND DESCRIPTION OF THE PARTIES AND LOCATION OF GENERATING FACILITY

- 2.1 The name and address used by Company to locate the Customer or electric service account where the Facility interconnects with Company’s EPS is: \_\_\_\_\_

Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
Phone: \_\_\_\_\_  
FAX: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Company Account Number: \_\_\_\_\_

- 2.2 The Facility shall be Interconnected with the Company’s EPS pursuant to an Interconnection Service Agreement between Company and Interconnecting Customer, its successors or assigns (“Interconnecting Customer”) dated \_\_\_\_\_ (“Interconnection Service Agreement”).

- 2.3 Interconnecting Customer’s contact information: \_\_\_\_\_

Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
Phone: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
FAX: \_\_\_\_\_

3. CUSTOMER ACKNOWLEDGMENT AND OBLIGATIONS

R.I.P.U.C. No. ~~21802244~~  
Canceling R.I.P.U.C. No. ~~21632180~~  
Sheet 100

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

- 3.1 Customer acknowledges that it has authorized the Facility to be installed and operated by Interconnecting Customer in accordance with Company's Interconnection Tariff in or adjacent to Customer's premises. Such Facility shall be used to serve all or a portion of Customer's electrical loads associated with the electric service provided by Company at the location identified in Section 2.1 above. Customer shall be solely responsible for the terms of any agreement between it and Interconnecting Customer.
- 3.2 Customer shall be solely responsible for any charges incurred under Company's electric service tariffs, and any other regulations and laws governing the provision of electric services. Customer acknowledges that it has been made aware of the charges and conditions related to the operation of the Facility and that the performance or lack of performance of the Facility may affect the rates and charges billed by Company for the electric power delivered to Customer. Copies of such tariffs are available by request to Company or on the Company's web site.
- 3.3 Any amount to be paid, or refunded to, Company for the services received by Customer as a result of the Interconnecting Customer failing to operate the Facility in accordance with the terms of the representations and warranties made under the Interconnection Service Agreement shall be paid to Company by the Customer in accordance with Company's electric tariffs.
- 3.4 Customer shall provide access as necessary to the Customer's premises for Company personnel, contractors or agents to perform Company's duties under the Interconnection Tariff. The Company shall have access to the disconnect switch of the Facility at all times.

4. TERMS AND TERMINATION

- 4.1 This Agreement shall become effective as of the date referenced in the preamble. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:
  - (a) The Parties agree in writing to terminate the Agreement.
  - (b) At 12:01 A.M. on the day following the date the Customer's electric service account through which the Generating Facility is interconnected to Company's EPS is closed or terminated.
  - (c) At 12:01 A.M. on the 31<sup>st</sup> day following the date the Interconnection Service Agreement is terminated.
  - (d) At 12:01 A.M. on the 61<sup>st</sup> day after Company provides written Notice pursuant to Section 6 below to the Customer that Customer is not in compliance with the terms of this Agreement.

5. LIMITATION OF LIABILITY

- 5.1 Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including court costs and reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage or liability actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.
- 5.2 Company shall not be liable to Customer in any manner, whether in tort or contract or under any other theory, for loss or damages of any kind sustained by Customer resulting from existence of, operation of, or lack of operation of the Facility, or termination of the Interconnection Service Agreement, provided such termination is consistent with the terms of the Interconnection Service Agreement, except to the extent such loss or damage is caused by the negligence or willful misconduct of the Company.

R.I.P.U.C. No. ~~21802244~~  
Canceling R.I.P.U.C. No. ~~21632180~~  
Sheet 101

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

6. NOTICES

- 6.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given on the date actually delivered in person or five (5) business days after being sent by certified mail, e-mail or fax with confirmation of receipt and original follow-up by mail, or any nationally-recognized delivery service with proof of delivery, postage prepaid, to the person specified below:

If to Company: National Grid  
Attention: \_\_\_\_\_  
Distributed Generation  
40 Sylvan Rd  
Waltham, MA 02451-1120  
E-mail: [Distributed.Generation@nationalgrid.com](mailto:Distributed.Generation@nationalgrid.com) ;

If to Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

- 6.2 A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 6.1.
- 6.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

7. RELEASE OF DATA

Company shall maintain confidentiality of all Customer confidential and proprietary information except as otherwise required by applicable laws and regulations, the Interconnection Tariff, or as approved in writing by the Customer.

8. ASSIGNMENT

Except as provided herein, Customer shall not voluntarily assign its rights or obligations, in whole or in part, under this Agreement without Company's written consent. Any assignment Customer purports to make without Company's written consent shall not be valid. Company shall not unreasonably withhold or delay its consent to Customer's assignment of this Agreement. Notwithstanding the above, Company's consent will not be required for any assignment made by Customer to an Affiliate or as collateral security in connection with a financing transaction. In all events, the Customer will not be relieved of its obligations under this Agreement unless, and

R.I.P.U.C. No. ~~2180~~2244  
Canceling R.I.P.U.C. No. ~~2163~~2180  
Sheet 102

The Narragansett Electric Company  
Standards for Connecting Distributed Generation

until the assignee assumes in writing all obligations of this Agreement and notifies the Company of such assumption.

9. NON-WAIVER

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

10. GOVERNING LAW, JURISDICTION OF COMMISSION, INCLUSION OF COMPANY'S TARIFFS, DEFINED TERMS

- 10.1 This Agreement shall be interpreted, governed, and construed under the laws of the State of Rhode Island and the Providence Plantations without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.
- 10.2 The interconnection and services provided under this Agreement shall at all times be subject to terms and conditions set forth in the tariffs applicable to the electric service provided by Company. Copies of such tariffs are available at the Company's web site or by request to Company and are incorporated into this Agreement by this reference.
- 10.3 Notwithstanding any other provisions of this Agreement, Company shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application for change in tariffs, rates, charges, classification, service or any agreement relating thereto.
- 10.4 When initially capitalized, whether in the singular or in the plural, the terms used herein shall have the meanings assigned to them either in this Agreement or in the Interconnection Tariff.

11. AMENDMENTS AND MODIFICATION

This Agreement can only be amended or modified by a written agreement signed by both Parties.

12. ENTIRE AGREEMENT

This Agreement, including any attachments or appendices, is entered into pursuant to the Interconnection Service Agreement and the Interconnection Tariff. Together this Agreement, the Interconnection Service Agreement, and the Interconnection Tariff represent the entire understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the Company's Interconnection Tariff.

13. INDEMNIFICATION

Except as precluded by the laws of the State of Rhode Island and the Providence Plantations, Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of or are in any manner connected with the performance of this Agreement by that Party except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the Party seeking indemnification.

R.I.P.U.C. No. [21802244](#)  
Canceling R.I.P.U.C. No. [21632180](#)  
Sheet 103

14. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed under seal by their duly authorized representatives.

Retail Delivery Service Customer  
(Electric account holder)

Narragansett Electric Company  
d/b/a National Grid

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_  
  
Signature: \_\_\_\_\_

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_  
  
Signature: \_\_\_\_\_

<b>Proposed Consensus Tariff Revisions and Rationale</b>	<b><del>Current</del> Proposed Interconnection Tariff Reference</b>
<p><b>Revision:</b> Change threshold for generating facilities that likely will require review by New England Power Company (“NEP”) in accordance with ISO-NE rules.</p> <p><b>Rationale for change:</b> To reflect ISO-NE current process requiring NEP to provide additional analysis of generating facilities between 1 MW and 5 MW.</p>	<p><u>See</u> Section 1.1, Applicability, Sheet 3</p>
<p><b>Revision:</b> Revise definition of “Affected System” and added definitions for “Affected System Operator”, “Affected System Owner” and “Affected System Operator Study”.</p> <p><b>Rationale for change:</b> To clarify the definition of Affected Systems and add definitions of related terms used in the tariff.</p>	<p><u>See</u> Section 1.2, Definitions, Affected System, Sheet 3</p>
<p><b>Revision:</b> Insert “distribution” in definition of Company EPS.</p> <p><b>Rationale for change:</b> To clarify the meaning of “EPS”.</p>	<p><u>See</u> Section 1.2, Definitions, Sheet 4</p>
<p><b>Revision:</b> Add definitions of Energy Storage System, Export Capacity, Inadvertent Export, Limited Export, Nameplate Rating, NRTL, and Protective Function, and revised definition of Facility.</p> <p><b>Rationale for change:</b> To provide terminology for new Section 4.3.1 concerning Export Capacity.</p>	<p><u>See</u> Section 1.2, Definitions, Sheet 4 through Sheet 7</p>
<p><b>Revision:</b> Add definition of Initial Review.</p> <p><b>Rationale for change:</b> To add the definition of Initial Review because, although this term is used in the tariff, the term is not a defined term in the tariff.</p>	<p><u>See</u> Section 1.2, Definitions, Sheet 5</p>
<p><b>Revision:</b> Add a new tariff provision to provide for the creation of an Interconnection Technical Standards Committee (“ITSC”).</p> <p><b>Rationale for change:</b> The ITSC will facilitate the timely flow of technical information and information regarding potential changes to the technical requirements of interconnection.</p>	<p><u>See</u> Section 1.2, Definitions, Sheet <del>56</del>; Section 9.4, Interconnection Technical Standards Committee, Sheet <del>49</del><u>58</u></p>

Proposed Tariff Revisions and Rationale	<del>Current</del> <u>Proposed</u> Interconnection Tariff Reference
<p><b>Pre-Impact Study Review:</b> Add a new tariff provision to provide for a Pre-Impact Study Review.</p> <p><b>Rationale for change:</b> The Pre-Impact Study Review will provide an optional high-level engineering review before an Impact Study or ISR DG is carried out to determine the scope of modifications to the EPS at an early stage of the interconnection process. The proposed Pre-Impact Study Review Agreement will be Exhibit F, and current Exhibits F through I will be re-lettered accordingly.</p>	<p><u>See</u> Section 1.2, Definitions, Sheet 7; Section 1.3.5, Forms and Agreements, Sheet 10; Section 3.0, Process Overview, Sheet <u>912</u>; Section 3.4, Standard Process, Sheets <u>16-19</u><u>29-32</u>; Table 1, Sheet <u>2640</u>; Exhibit F – Pre-Impact Study Review Agreement, Sheets <u>7582-83</u></p>
<p><b>Revision:</b> Add reference to microgrids and delete outdated paragraph contemplating special interconnection requirements for facilities over 3 MW.</p> <p><b>Rationale for change:</b> To acknowledge that the Company will work with local jurisdictions and Interconnecting Customers who are considering microgrids.</p>	<p><u>See</u> Section 2.0, Basic Understandings, Sheet <u>1011</u></p>
<p><b>Revision:</b> Revised description of Simplified process.</p> <p><b>Rationale for change:</b> Reflects proposed changes to the Simplified process.</p>	<p><u>See</u> Section 3.0, Process Overview, Sheet <u>1112</u>; <u>Section 3.1, Simplified Process, Sheet 13</u></p>
<p><b>Revision:</b> Add requirement for Company to advise Interconnecting Customer of materials missing from an interconnection application.</p> <p><b>Rationale for change:</b> To provide the Interconnecting Customer with information about specific materials needed for the Company to accept application as complete and ready to proceed to next step.</p>	<p><u>See</u> Section 3.1.a.iii, Simplified Process, Sheet <u>1213</u>; Section 3.3.a.iii, Expedited Process, Sheet <u>1522</u>; Section 3.4.1.iii, Standard Process, Sheet <u>1729</u></p>
<p><b>Revision:</b> Revise Simplified process.</p> <p><b>Rationale for change:</b> Revise Simplified process to keep more applicants in the Simplified process including by deleting the existing Simplified process screen and adding a new Simplified eligibility and screening process <u>and by deleting Simplified Spot Network process.</u></p>	<p><u>See</u> Section 3.1.b and 3.1.c and Figure 1 and Notes, Simplified Process, Sheets <u>1214-13</u> <u>and 16-19</u>; Delete Figure 1 and Explanatory Notes and Figure 2 in current tariff, Sheets <u>21-35</u> through <u>2539</u>; Table <u>21</u>, <u>and</u> Note 4, Sheets <u>40 and 43</u> <u>29</u></p>



<b>Proposed Tariff Revisions and Rationale</b>	<b><del>Current</del> Proposed Interconnection Tariff Reference</b>
<p><b>Revision:</b> Add requirement to the Simplified Process that the Company must have completed any required System Modifications before interconnection is authorized.</p> <p><b>Rationale for change:</b> To clarify that under the Simplified Process (as is the case under the Expedited and Standard Processes), interconnection cannot be authorized until System Modifications have been completed.</p>	<p>See Section 3.1.f and 3.1.g, Simplified Process, Sheets <del>13</del><u>14-15</u>; Table 2, <del>and</del> Notes 1 and 5 and deleted Note 8, Sheets <del>42 and 30</del><u>45</u></p>
<p><b>Revision:</b> Add information to be provided in Pre-Application Reports, a fee, and time frames.</p> <p><b>Rationale for change:</b> To require specific additional information in the Pre-Application Report and compensate the Company accordingly. Consensus was reached on the concept of charging a fee.</p>	<p>See Section 3.2, Pre-Application Reports, Sheets <del>13-14</del><u>20-21</u>; Table 2, Sheet 42; Exhibit B – Generating Facility Expedited/Standard Pre-Application Report Form, Sheet <del>62</del><u>69</u></p>
<p><b>Revision:</b> Add specificity about the Expedited Process.</p> <p><b>Rationale for change:</b> To provide more detail about the steps of the Expedited Process, including by adding a new Expedited eligibility and screening process.</p>	<p>See Section 3.3, Expedited Process, Sheets <del>14-16</del><u>22</u>, and Figure 2, Sheets <del>25-28</del></p>
<p><b>Revision:</b> Add specificity about the Standard Process.</p> <p><b>Rationale for change:</b> To provide more detail about the steps of the Standard Process.</p>	<p>See Section 3.4, Standard Process, Sheets <del>16-19</del><u>29-32</u></p>
<p><b>Revision:</b> Add more information about ASO Studies and the Standard Process.</p> <p><b>Rationale for change:</b> To provide more information about how an ASO Study can affect the Standard Process.</p>	<p>See Section 3.4.f and h, Standard Process, Sheets <del>18-30</del><u>32</u></p>
<p><b>Revision:</b> Add specificity about System Modification payment obligations.</p> <p><b>Rationale for change:</b> To clarify Interconnecting Customer System Modification payment obligations.</p>	<p>See Section 3.5, Time Frames, Sheet <del>19</del><u>33</u>; Section 5.3, System Modification Costs, Sheet <del>39</del><u>45</u>; Section 5.4, Separation of Costs, Sheet <del>40</del><u>46</u>; Section 5.5, Normal Payment Procedure, Sheets <del>40-41</del><u>47</u>; Exhibit G – Detailed Study Agreement, Sheets <del>78-80</del><u>84-86</u></p>

Proposed Tariff Revisions and Rationale	<del>Current</del> <u>Proposed</u> Interconnection Tariff Reference
<p><b>Revision:</b> Clarify that Table 1 Time Frames will be affected by a “transmission” level system impact study.</p> <p><b>Rationale for change:</b> To clarify that this provision refers to a transmission, and not a distribution, system impact study.</p>	<p><u>See</u> Note 1 of Table 1, Sheet <del>29</del><u>43</u></p>
<p><b>Revision:</b> Add new Section 4.3.<del>1</del> concerning Export Capacity</p> <p><b>Rationale for change:</b> Clarifies methods for limiting the total export capacity of a DG facility coupled with an Energy Storage System to enable the facility to qualify for the Simplified process.</p>	<p><del>Not in current tariff</del><u>Sheets 43-45</u></p>
<p><u><b>Revision:</b> Revise dispute resolution process description in Section 9.0 and Section 9.2</u></p> <p><u><b>Rationale for change:</b> Provide clarity around what is and is not appropriate for dispute resolution and clean up the language</u></p>	<p><u>Sheets 53-54</u></p>